ETC

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In Volume XI, Number 3:

"Semantic Difficulties in International Communication" — an article by EDMUND S. GLENN.

"Danger: Men Talking" — WILLIAM H. SCHNEIDER illustrates semantic principles with a series of drawings.

IRVING J. LEE describes "rules of discourse" for more productive meetings.

A Soviet attack on mathematical biology and sociology — translated by ANATOL RAPOPORT.

"Is Man an Animal?" JOHN R. KIRK analyzes the implications of rival definitions of man.

Discussion and reviews by DAVID BIDNEY, HAROLD S. SLOAN, KAZUO HAYASHI, IRVING H. FLAMM, KENNETH WINETROUT, HENRY C. LINDGREN, WHITAKER DEININGER.

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ETC.: A REVIEW OF GENERAL SEMANTICS

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Editor: S. I. HAYAKAWA, 1356 Hyde Park Boulevard, Chicago 15, Illinois.

Associate Editors: ANATOL RAPOPORT, Assistant Professor of Mathematical Biology, University of Chicago, Chicago 37; RUSSELL F. W. SMITH, University College, University of Chicago, 19 S. LaSalle St., Chicago 3.

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SEMANTIC DIFFICULTIES IN INTERNATIONAL COMMUNICATION

EDMUND S. GLENN *

IT IS too often assumed that the problem of transmitting the ideas of one national or cultural group to members of another national or cultural group is principally a problem of language. It is likewise assumed that that problem can always be solved by the use of appropriate linguistic techniques—translation and interpretation. A constant and professional preoccupation with the problem of international communication has convinced me of the fallacy of this point of view.

Patterns of Thought

BOTH an eminent professional philosopher, Professor Max Otto, and a very prominent layman, President Eisenhower, have recently stated that each man has a philosophy, whether or not he is aware of that fact. This means of course that people think in accordance with definite methods or patterns of thought. The methods may vary from individual to individual and even more from nation to nation.

Philosophical controversy is a historical fact. It is a mistake to believe that philosophical differences of opinion exist only at the level of conscious and deliberate controversies waged by professional philosophers. Ideas originated by philosophers permeate entire cultural groups; they are in fact what distinguishes one cultural group from another. The individuality of, for instance, Western culture, or Chinese culture, cannot be denied. The fact that when speaking of the English, the Americans, the French, or the Spanish, we tend to use expressions such as "national character" should not blind us to the fact that what is meant by "character" is in reality the embodiment of a philosophy or the habitual use of a method of judging and thinking. Thus the French describe themselves as Cartesian; the English and the Americans seldom describe themselves, but still they act consistently in such a manner as to be described by others as pragmatic or empirical. Professor Karl Pribram writes,

> Mutual understanding and peaceful relations among the peoples of the earth have been impeded not only by the multiplicity of languages but to

* Presented at the Second Conference on General Semantics, Washington University, St. Louis, June 10-12, 1954. Mr. Glenn is Chief of the Interpreting Branch of the Division of Language Services, Department of State.

an even greater degree by differences in patterns of thought—that is, by differences in the methods adopted for defining the sources of knowledge, and for organizing coherent thinking.

No mind can function to its own satisfaction without certain assumptions regarding the origin of its basic concepts and its ability to relate these concepts to each other. These assumptions have undergone significant changes in the course of time and have varied more or less among nations and among social groups at any given time. These differences in methods of reasoning have generated tension, ill-feeling, and even hatred.

The determination of the relationship between the patterns of thought of the cultural or national group whose ideas are to be communicated, to the patterns of thought of the cultural or national group which is to receive the communication, is an integral part of international communication. Failure to determine such relationships, and to act in accordance with such determinations, will almost unavoidably lead to misunderstandings.

Soviet diplomats often qualify the position taken by their Western counterparts as "incorrect" (nepravilnoe). In doing so, they do not accuse their opponents of falsifying facts, but merely of not interpreting them "correctly." This attitude is explicable only if viewed in the context of the Marxist-Hegelian pattern of thought, according to which historical situations evolve in a unique and predetermined manner. Thus an attitude not in accordance with theory is not in accordance with truth either; it is as incorrect as the false solution of a mathematical problem. Conversely, representatives of our side tend to propose compromise or transactional solutions. Margaret Mead *et al* write that this attitude merely bewilders many representatives of the other side, and leads them to accuse us of hypocrisy, because it does not embody any ideological position recognizable to them. The idea that there are "two sides to every question" is an embodiment of nominalistic philosophy, and is hard to understand for those unfamiliar with this philosophy or with its influence.

Or again, on a slightly different plane: a simple English "No" tends to be interpreted by members of the Arabic culture as meaning "Yes." A real "No" would need to be emphasized; the simple "No" indicates merely a desire for further negotiation. Likewise a non-emphasized "Yes" will often be interpreted as a polite refusal. (E. Shuby)

NOT ALL patterns of thought, or rather not everything in patterns of thought, is due to the influence of well-defined methodologies. Association of ideas plays a great part in thought; thus, clearly, each man's thought is to a large extent a function of this man's past.

Thus for instance, the word "colonialism" carries particularly irritating connotations to most Americans whereas it carries no such connotations to most Englishmen, Frenchmen, or Dutchmen. The reason for it is obviously anchored in history. It may not necessarily be, on the part of the Americans, the effect of

a fully thought out political theory, but may be a simple association of ideas based on verbal habits which describe the American revolution as the rising of "colonies" against an "empire."

Denotation and Connotation

PROBLEMS of this type appear in a much more complicated form whenever two words in two different languages have the same denotation but different connotations.

Thus for instance, the French word "contribuable" and the English word "taxpayer" denote the same thing, but their connotations are not identical. "Taxpayer" is a word descriptive of physical action, of something which might have been seen with the eyes. It evokes the image of a man paying money at, for instance, a teller's window. "Contribuable," on the contrary, embodies an abstract principle. It evokes not an image but a thought, the thought that all citizens must contribute to the welfare of the nation of which they are a part.

Let us consider for a moment the connotations of these two words in the context of the North Atlantic Treaty Organization. A normal reaction on the American side will be: Does the man who pays get a fair return on his money? Or, in other words, is the Mutual Assistance Program really the best way of getting the most security for the least cost? A typical reaction on the French side will be quite different: Does everyone contribute equally to the common cause? Are the Americans as deeply and personally involved as the French? I would not be surprised if some of the differences of opinion which arose at various moments within NATO between the United States and France were not due to a large extent to this particular semantic difficulty.

The Role of Language

THE PRECEDING paragraph showed how patterns of thought may influence language and in turn be influenced by it. Both "taxpayer" and "contribuable" are comparative neologisms. If a certain method of word formation—by intension—was chosen by the French, it is because it corresponded to the pattern of thought prevalent in France. If another method of word formation—by extension—was chosen by the English, it is because it corresponded to their most general pattern of thought. Thus, peculiarities of language may constitute good indications of the prevalent manner of thinking.

However, once created, words and expressions assume an active role and contribute to the fashioning of thought. Thus two types of situations arise:

1. Cases where a given language is capable of expressing various shades of meaning and where the pattern of expression selected by given individuals provides a clue for the determination of their pattern of thought.

2. Cases where a certain combination of denotation and connotation can not be obtained in a simple manner in a given language.

An example of the first case may be found in the following expressions: "What should we do under the circumstances?" and "What does the situation require?" Although the denotations of these two questions are just about identical, the answers, influenced in part by connotations, may tend to be different. The point is that although one of these two forms will appear more natural than the other, the English language is capable of using both.

The following occurrence may be presented as an example of the second case: At an international conference which took place a few years ago and in which both the United States and the Soviet Union participated, it became rapidly apparent that the Soviet Union would not sign the agreement in preparation. The reason for it was a disagreement in substance, which could not be overcome. The Russians, however, continued to participate in the work of the various committees, and in particular of the drafting committee, mainly it seemed in order to preserve diplomatic niceties. Their representatives were seldom heard from.

Thus, considerable surprise was created when a seemingly unimportant proposal by the U.S. delegate resulted in an outburst of violent Soviet opposition. Even more surprising was the attitude of most Europeans and in particular of the French who publicly supported the United States but privately stated that it was a mistake to have backed the Soviets against the wall by an attitude which they described as rigid and overbearing. The proposal of the U.S. delegate consisted in inserting in the preamble to the proposed agreement a clause taken from another instrument and containing the expression "expanding economy."

I would suggest the following explanation for this incident: the expression "expanding economy" is neutral with respect to the Aristotelian categories of accident and essence. An "expanding economy" may be an economy which happens to be expanding because of various outside influences, or else an economy which is expanding because of characteristics inherent to its nature.

In Russian "expanding economy" becomes "rasshiryayushchiyasya ekonomiya" in which the reflexive form it used. Although it would be incorrect to say that "rasshiryayushchiyasya" has the denotation of the English expression "self-expanding" it unquestionably carries a connotation which will lead a Russian-speaking listener to conclude that "expanding economy" means an economy expanding for reasons inherent to its nature.

Thus in this case language itself directed the attention of the listener away from one possible explanation and in the direction of another. To compound the felony the difference between accident and essence is much more important to a person whose mind follows the Marxist-Hegelian pattern than to a person whose mind follows an empirical or pragmatic bent. The fact that an economy is expanding may warrant a certain type of action in the eyes of the empiricist, whichever be the cause of the expansion of the economy. To a Hegelian an

economy expanding for accidental causes is bound to reverse itself unavoidably and rapidly.

Now it so happens that Marxist theory rules that the economy of the Western world must contract and cannot expand. Thus the recognition of an inherently expanding character in this economy, and this in an official document, could not fail to appear completely unacceptable to a Soviet delegate.

Classification of Patterns of Thought

THE PROBLEM of defining, describing and analyzing patterns of thought is not the only one which needs to be faced in the field of international communications. Questions such as translation *proprio motu*, choice of media and levels of approach, etc., also deserve attention. However, as they have been less neglected than were the problems of basic philosophical, ethnical, anthropological and linguistic determinations, they will be considered outside the scope of this paper.

I will deal here only with the analysis of pronouncements made by persons belonging to the Western cultural world and using one of the European languages. I do not feel competent at the present moment to do any work which would extend beyond the boundary defined above. In consequence, the classifications suggested below will be such as to help in analyzing a field limited to one culture, albeit an important one. Three basic groups of criteria will be used in the sample analysis at the end of this paper.

1. PATTERNS OF REASONING. Professor Karl Pribram, who has pointed out the importance of linguistically determined assumptions in the formation of concepts, distinguishes, in his book *Conflicting Patterns of Thought*, the following four patterns of reasoning.

a. *Universalistic reasoning.* Universalistic reasoning is based on the premise that the human mind is able to grasp directly the order of the universe. Reason is credited with the power to know the truth with the aid of given general concepts and to establish absolutely valid rules for the organization of human relationships in accordance with these concepts. Universalistic reasoning proceeds from the general to the particular; it believes that general concepts, or universals, possess a reality independent from those of their components or constituents. The best way to determine what will happen in a given case is to know what happens in a more general category and then to determine what particular modifiers make the case in question a slight exception to the general rule.

b. *Nominalistic, or hypothetical, reasoning.* Nominalistic philosophy rejects the belief that general concepts have a reality of their own; instead it considers them merely as names, as convenient categories, more or less arbitrarily estab-

lished by human minds. Reasoning proceeds from the particular to the general. Any exercise in pure reason establishes merely a hypothesis which must be verified by concrete experience.

Although these descriptions of patterns of thought may give the impression of dealing with abstract and complex reasonings, the influence of the patterns of thought described above may be found also at very concrete levels. Thus, for example, French visitors to New York are in general highly critical of the New York subway. What repels them is not the dirt or the crowding, but the evident lack of comprehensive planning in the geographical distribution of lines. For instance, there is no subway line which would take one from the business district around Wall Street to the new business district around Rockefeller Center, or from the Cloisters to the Metropolitan Museum of Art. The argument that the New York subway is the one which carries the greatest number of persons the most rapidly over the greatest distances from home to work and from work home does not impress the French visitors overly much.

On the contrary, the Paris Métro covers all of Paris like a spider web. Convenient change-over stations make it possible to go from any monument to any other. At the same time the Métro strikes the American visitor as almost unbelievably slow. It does not reach very far into the suburbs, where many people live, and its routes do not necessarily follow the pattern of home to work and work to home connections.

I will put it that the Paris Métro is based on the universalistic concept of a means of transit designed to provide for the needs of a city, considered as such, or as a universal, a collective noun. Lines run from one point of interest to another, no part of the city being deprived of a means of communication with all of the other parts; at the same time considerations such as the density of traffic are almost completely disregarded. On the contrary the New York subway is nominalistic; there is no network planned to cover a collective entity, the city; on the contrary, lines are built in such a way as to do the most possible good to the greatest possible number of individuals considered as such. It is not much help to those who want to go from one residential area to another—but then people go fairly seldom from one residential area to another. On the contrary, it is every day that people go from home to work and from work home, and the New York subway is planned according to this consideration.

The names selected in each case by popular usage express the same preoccupation as the planning. "Métro" is an abbreviation of "métropolitain" or "metropolitan." The French language has resources which would have enabled Parisians to have selected a name such as "subway," but they did not choose to do so. Likewise English has the word "metropolitan," and the official titles of the various subway organizations in New York include words such as "transfer," "transit," and "system," yet the names chosen by the public are "subway," "el," or in Britain, "underground" or "tube."

It might be noted that "chemin de fer" is etymologically as well as factually similar to "railroad." But then, French railroads have the same characteristics from the point of view of planning as does the New York subway. Rail lines follow lines of probable maximum density which in France means that they radiate from Paris to the provinces. At the same time the network is not completed by transversal roads; the shortest way of getting from one provincial town to another may very often be the long way through Paris. This state of affairs was always considered illogical by the French and was violently criticized by them. As a result of this criticism it has been corrected to a large extent. The same criticism might have been leveled against American railroads. I remember being told that the best way to get from Sheridan, Wyoming to San Francisco was through Seattle. Yet the criticism which might have been leveled at the American roads are in fact never heard. The American public understands that it is not economical to provide trains for occasional travel along low-demand routes.

Now it so happens that the French railroads were started by English capital and planned under English inspiration: they even run on the left whereas everything else in France runs on the right. Thus even this exception seems to confirm the rule: the fact that France is by and large a universalistic country does not mean that nominalism is entirely without influence there.

c. *Intuitional or organismic reasoning.* This type of reasoning stresses intuition rather than systematic cogitation. It is thus in a position to ignore some of the basic opposition between nominalism and universalism. It considers that the relationship between a collectivity and its members may be compared to the relationship between a biological organism and its component cells. Organismic reasoning opposes intuitive to discoursive consciousness and claims that reliance on one's intuition enables man to be "independent yet subject to one's duties" (Joel). It is often associated with extreme nationalism and prevalent in Germanic and Slavic Central Europe.

d. *Dialectic reasoning.* Hegelian dialectics are derived from universalism and, like universalism, believe in the possibility of a full understanding of the universe through reason. "But, according to the principles of dialectics, comprehension of the ever-changing nature of the phenomena and the flux of events can not be achieved with the aid of rigid concepts, alleged to be implanted in the human mind. The course of events is believed to be determined by the operation of antagonistic forces and must be understood with the aid of concepts adjusted to the contradictions logically represented by these forces." (Pribram).

Marxist dialectic materialism follows the Hegelian pattern which it modifies by the dogma of the predominance of materialistic factors.

2. THE VERB TO BE AND THE VERB TO DO. The classification described above has been used very successfully by Professor Pribram in the analysis of a broad historical evolution of the patterns of thought. Other types of classification may be useful in supplementing it in cases of a more concrete nature.

One such method of classification may be found in the difference which separates the logic of the verb "to do" from the logic of the verb "to be."

The logic of the verb "to be" is basically two-valued: things are either thus or not thus. Propositions are either true or false. Meaningless propositions may generally be eliminated and reasoning presented in such a way that a two-valued logic applies.

On the contrary the logic of the verb "to do" is essentially multi-valued: one does not do things truly or untruly, one does them more or less well.

All men are confronted with situations in which they tend to reason in terms of the verb "to be" and with other situations in which they tend to reason in terms of the verb "to do." There are, however, still other situations which may be studied by either of the methods correlated with these two verbs. Choices made by various individuals are indicative of the patterns of thought followed by them.

Quite obviously a prevalence of reasoning in terms of the logic of the verb "to do" ties in with nominalism, while a prevalence of reasoning in terms of the logic of the verb "to be" ties in with universalism. Thus an analysis undertaken in terms of these two verbs will be helpful in detecting patterns of thought which might fall within the scope of the classification under 1. More than that, such an analysis will also show why it is that in some cases nominalists and universalists reach different conclusions even when starting from identical premises.

Let us take as examples the two concepts of compromise and intervention. If A wishes to paint the wall black and B wishes to paint it white, they may reach an honorable compromise by painting it grey. If A now states that the wall is black, and B states that the wall is white, they may not compromise by calling it grey, as this would make liars of both of them. They may try to convince one another, they may try to fight it out, or they may drop the subject.

I believe that the instability of the French cabinets is due to the fact that, when faced with an issue, the French tend to ask themselves, "What is right?" That is why there are so many issues which often come up for debate and seldom reach the stage of solution. That is also why action can be undertaken only at the expense of excluding from the cabinet for the time being those who do not agree with the majority and who can compromise only by being absent, even temporarily.

It may be noted that the verb "to compromise" has a dual meaning both in French and in English, as for instance in "compromise the difference" and

"compromise one's integrity." The first of these two meanings is by far the more frequent in English, the second one by far the more frequent in French.

Let us turn now to the concept of intervention. A and B intend to have lunch together but have not agreed on the choice of a restaurant. They discuss the question in terms of their likes and dislikes, one saying that he would like to go one place and the other that he would like to go to another. C, who has not been invited, overhears the conversation, steps in and tells them what to do. C's attitude would be unanimously considered extremely rude: the action taken by a group to which he doesn't belong, in a case when this action does not affect him, is none of his business.

Once more A and B intend to have lunch but are not in agreement on the choice of a restaurant. This time, however, they conduct their discussion in terms of the verb "to be," A saying that food is better at one place and B that it is better at another. C, who still has not been invited, again overhears their conversation, again steps in offering some factual information about either or both of the two places. This time C's attitude will probably be quite acceptable.

Yet in fact there is no difference between the two situations. If a person wants to have lunch at a certain restaurant, it is probably because the person in question believes that the food is good there. Conversely, to say that food is good at a place means simply that one likes what is served there. As for factual information, one might do well to remember Goethe's saying: that which we call facts are nothing but our own pet theories. Thus again the difference is not in the situation, but in the patterns of thought.

It may be noted that French has several words which more or less mean intervention, for instance "intervention," "immixion," "ingérence." The two latter have a pejorative meaning. If now we pass from the nouns to the verbs, we see that the verbs corresponding to the pejorative nouns take the reflexive form, thus: "s'immiscer," "s'ingérer," but "intervenir." Thus clearly what brings in the pejorative meaning is an insistence on the intervener, the doer, as opposed to an insistence on the situation.

Let us now consider the hypothetical case of the country A which wishes another Country B to take a certain step of a very controversial nature. Country A is basically nominalistic, Country B is basically universalistic. Country A will not try to influence public opinion in Country B; its government thinks of intervention in terms of the verb "to do" and considers it *a priori* as an unfriendly gesture. Country A will try to negotiate directly this issue at government level, offering perhaps some inducements in another field as basis for a compromise, which, being nominalistic, it considers honorable. Unfortunately Country B, being universalistic, cannot accept a bareface compromise. At the same time it would not necessarily have resented an intervention, even addressed directly to its own public opinion, if such intervention were made in sufficiently theoretical and impersonal terms.

3. DENOTATION AND CONNOTATION. Of the two methods of classification suggested above, only one may be qualified as linguistic. Yet language may influence thought or else be used as an indication of an existing pattern of thought correlated with a pattern of expression in many more ways than one. Unfortunately the field of the mutual influence of language and thought is as yet largely unexplored. In consequence purely linguistic manners of classification will need to be developed slowly, through experience.

It appears clear, nevertheless, that a search for connotation as distinct from denotation may clarify many concrete situations. Some examples of situations of this kind have been given previously, some others will be found below.

In seeking to systematize the influence of connotations particular attention will have to be paid to the formation of names of sets or classes, or of representatives of sets, either through extension or through intension. Extensive or descriptive formation will generally indicate the prevalence of nominalist patterns and of multi-valued logic. On the contrary, intensive formation will indicate the prevalence of universalistic patterns. Both types of word formation will be found in most languages. Areas in which words are formed by one or the other system will in general correspond to areas in which a corresponding type of reasoning is prevalent.

Analysis of connotations should go beyond simple words. It should also embrace sentence structure, set expressions made up of several words, current metaphors, proverbs and manners in which groups of words may be formed around the same root.

For instance an expression such as "faire faire," which can never be properly translated into English—"to have something done" lacks both spontaneity and generality—is in itself an indication of a certain contempt towards action and at the same time is an expression of respect towards the thought which precedes action; in other words it is an expression of universalistic thinking.

The use of the verb "to do" as the principle auxilliary verb in English is also a program in itself.

THE SYSTEMS of classification suggested above are not intended to cover the entire field. They are, rather, examples of lines which can be followed. No analysis should neglect the possibility of finding other explanations such as the ones which may be derived from the implications of history, even where those implications cannot be expressed in terms of semantic or philosophical categorization.

Thus, for instance, of all the great democracies the United States is the one which shows the greatest intolerance of domestic communism. I believe that an explanation of this fact may be found in the very tradition of the beginnings of an American nationality. Most European countries are founded on a tradition of indigenous ancestry. There are naturalized Frenchmen and Britons, and other

Frenchmen and Britons who are descendants of immigrants, but people of these descriptions constitute very small minorities of the citizens of their respective countries. In consequence it is difficult for European countries to consider unwelcome the exponent of any political ideology as long as he can point out a long line of indigenous ancestry. On the contrary, the United States as a nation was created by men and women who had come to a new continent in order to establish a society based on certain definite ideals. It may be interesting to note in that connection how much more important is for American tradition the settlement of the Pilgrims in 1620 than is the settlement of the gentlemen adventurers of Virginia in 1607. The United States thus bases its tradition on the establishment of an ideology on virgin soil. It is thus quite normal for Americans to think that those who wish to establish some other ideology should go and do it somewhere else.

A Day in the Security Council

IN THE PARAGRAPHS below I will try to analyze the complete stenographic record of the first part of the 100th meeting of the Security Council. The record used is in three languages—English, French and Russian. Analysis will start in all cases with the consideration of statements in the original language, then pass on to the translations.

In that connection it should be noted that (1) the differences of opinion of the various representatives are due primarily to questions of a political nature the discussion of which falls outside the scope of the present paper. At the same time the type of arguments chosen by the participants and the manner in which those participants present their arguments are considered indicative of patterns of thought and will be the subject of the present analysis.

(2) The translations by linguists of the United Nations Secretariat are invariably excellent. Although I have spent many years in work of this type, there is not one single aspect of these translations on which I feel I could improve.

In order to facilitate reading the various points being analyzed will be numbered consecutively.

1. The President, a Belgian, says, "Aucune proposition n'étant faite dans ce sens, j'en déduis. . . ."

The last word becomes "I assume" in the English translation. "I deduce" would have been stiff, "I conclude" almost impolite, implying that no change of opinion or of interpretation on the part of the Assembly would be welcome. "I assume" is correct because that is the word which an English-speaking chairman would have chosen in all probability, and also because, in a nominalistic or hypothetical reasoning, one acts upon assumptions. Assumptions become certainties only after action has resulted in their verification.

The President could not have used the French equivalent of "I assume." If one considers that reason is capable of reaching entirely valid conclusions one

does not act upon assumptions. "Je suppose" would have implied that the members of the Council have not made their positions sufficiently clear to allow the President to reach a clear conclusion.

The Russian translation uses "zaklyuchaiyu"—"I conclude." The strength of this word may be best evaluated if one realizes that the participle form "zaklyuchonnyi" means a prisoner and is often used in the subsequent remarks of the Russian delegate.

In that respect it may be interesting to note that Slavic languages tend to create groups of words using the same root with different prefixes and suffixes. Thus for instance "zaklyuchit'" to conclude, "izklyuchit'" to exclude, "vyklyuchit'" to switch off, "vklyuchit'" to switch on or to include. A still better example is found in the Polish verbs "to read." There is one such verb in English, and twelve in Polish, to wit:

czytać	to read
czytywać	to read habitually
przeczytać	to read completely
przeczytywać	to read completely and habitually
odczytać	to read aloud to a group, to communicate a written text
odczytywać	the same thing habitually
wyczytać	to read excerpts, to interpret (a meaning)
wyczytywać	the same thing habitually
wczytać	to read a meaning into a text
wczytywać	the same thing habitually
zaczytać się	to bury oneself in one's reading
zacytywać się	the same thing habitually

It is not difficult to imagine how such a manner of expression would encourage a manner of thinking prone to a certain subtlety in distinctions and to a certain rigidity of categorization. Situations should fall into one of several clearly defined patterns; whenever they fail to do so, they would be considered with disbelief or at least skepticism.

2. An intervention of the Australian delegate, who alludes to the need of investigating "the situation which is before us."

"Which is before us" becomes "qui nous est soumise" in French and "rassmatrivayemym nami" in Russian. "Which is before us" is neutral. "Qui nous est soumise" means literally "which is submitted to us" and implies the assumption of authority of a body of men—the Security Council—over a situation. The Russian expression means "which is under consideration" but with the connotation of "which is being taken apart" or "in regard to which the precise category into which it falls has to be determined." Both the establishing of a hierarchy and that of fixed categories are characteristic of universalism.

3. Where the Australian delegate says that the situation needs to be investigated, the Soviet delegate says that the question is already decided. It is the "same" situation as the one which was discussed before. The difference of opinion between the two delegates is due to the fact that the Australian looks at it from the point of view of procedure while the Soviet delegate looks at it from the point of view of substance. (Once again it is realized that they may have political reasons for adopting the attitude which they have taken. Nevertheless the manner of argumentation remains indicative of the pattern of thought.) An insistence on the procedural aspect is well in keeping with the nominalist attitude, as after all it is procedure which will determine the manner of action—if not necessarily the direction of such action—of a body such as the Security Council. On the contrary an insistence on the broad substantive aspects of the situation is well in keeping with a manner of thinking according to which historical development falls in a pre-determined course, and the main task of the statesman is to recognize and diagnose correctly a substantive situation. The "correct" action to be undertaken will follow more or less automatically from a correct diagnosis.

4. The Soviet delegate claims that the present situation is part and parcel of a more general situation and should not be discussed separately. In doing so, he uses the expression "opryedyelyennaya stadiya" which becomes "phase nouvelle" and "another aspect" in English. Literally it means "a well-defined phase." Even such an expression as "another phase" might have conveyed to an English-speaking listener the idea that special measures should be taken, as it is perfectly normal to treat each phase of a situation separately. An expression such as "a well-defined or well-determined phase" would have even accentuated this idea of separateness from the more general question, and thus expressed an intention exactly contrary to that of the speaker. "Phase nouvelle" is faithful to the meaning but "phase bien determinée" would have again given the impression that this phase should be separated from the broader aspects of the problem. As a matter of fact the expression "opryedyelyennaya stadiya" would have conveyed an intention somewhat contrary to that of the speaker even to a non-Communist Russian listener. If used by the Soviet delegates it is because it fits in with the Marxist interpretation of history according to which evolution proceeds necessarily from one "well-determined phase" to another; the fact that the phase is well-determined, and not merely vaguely outlined, proves that it is indeed an integral part of a correctly diagnosed and described over-all situation.

5. In the same intervention the Soviet delegate said that the decision of the Council "dolzhen reshat'sya avtomaticheski." As "should be reached automatically" is ambiguous in English, it becomes "the question settles itself automatically" in the English translation, and "pouvons trancher d'office" in the French translation. The English translation is a wee bit stronger than the origi-

nal Russian, the French quite a bit weaker. But both convey clearly the dialectical meaning: once the correct diagnosis is reached, the manner of action is determined automatically.

6. The Australian delegate again takes the floor and spells out his meaning: the substantive situation is irrelevant for a moment as the Council must first of all settle a question "concerning the operations" of one of its subsidiary organizations.

7. The President, speaking in French, states that a Commission has requested a certain government "de faire ajourner" certain measures. This becomes "requested to postpone" in the English translation. In French, a government acts directly only at a very high level. In regard to questions of a less exalted nature, it merely causes an action to be taken. Thus a clear hierarchy between principle and mere action is established. (In Russian this becomes "a request in regard to postponement.")

8. The United States delegate finds that the situation is clearly one of procedure. The question is "simple" because the "only concrete" action which may be taken is a procedural one. The procedural situation should not be "seized upon" in order to introduce long arguments about substance.

9. It might be noted that the expression "draft resolution" becomes "projet de resolution" in French and "proyekt rezolyutsiyi" in Russian. A draft is something you work upon and try to perfect. The implication is that it is only the final product which will be judged. A project is something which may be rejected *in toto;* the implication is that the desirability of such a project should be decided upon theoretically before any work is spent in trying to reach perfection.

10. The Soviet delegate reiterates that "otvyet mozhet byt' tol'ko"—there is but one answer to the question. Once again the Soviet delegate asks how is it possible to consider a question of procedure—about which nothing is said in the theory of historical evolution—independently from the question of substance, which is the one to which an answer can be found through dialectics.

11. The Russian "utvyerzhdyeniye" appears as "assertion" in English and as "avis" in French. "Avis" means in this context merely "opinion." "Assertion" is stronger, but not as strong as "affirmation" which would be the closest to the original Russian. However the very strength of "affirmation" would tend to give it an ironical or even pejorative connotation. "Utvyerzhdyeniye" is very strong; it derives etymologically from "tvyerdyi"—"hard" and the obsolete "tvyerdynya" —"fortress." The contrast between the weakness of the French expression and the strength of the Russian one is particularly striking, the more so that we tend to consider both nations as following a more or less universalistic bent. Incidentally, it is quite as easy to express the meaning of "opinion" in Russian as that of "affirmation" in French. The present choice of words, on the part of the Russian delegate and on the part of the very competent French translators,

is probably due to the absence in pure universalism and to the presence in Hegelianism of an element of systematic strife: thesis versus antithesis.

12. The Soviet delegate further states that he "cannot understand" how his opponents can consider a procedural aspect as being distinct from the more general question of substance.

13. The Russian "sootvyetstvovat' " becomes "to signify" in English and "appeler" in French. It literally and also etymologically means "to correspond" (so-otvyet, cum—respondere). This again shows a predilection for rigid categories.

14. The representative of France takes the floor. For obvious reasons he sides with the Australian and the American and gives his own very brief restatement of their position. The only thing which he introduces and which was not contained in the earlier speeches of the Western delegates is one little word: "donc"—"therefore." The effects of this little word will be seen in some of the subsequent remarks.

15. For the French delegate the question is "la question dont il s'agit." This is translated into Russian by the equally impersonal "ryech idyet," but becomes in English "the question with which *we* are concerned" with a shift of emphasis from the situation *per se* to the people dealing with it.

16. "Il est naturel" remains "it is natural" in English but becomes "yest-yestvenno" in Russian. This word derives from the root "yestyestvo" meaning "substance" and itself deriving from the word "to be." It is much closer in its connotations to the Aristotelian original than is "natural."

17. There are two French words which correspond to the English word "probable." These are "probable" and "vraisemblable," the latter containing the connotation of a judgment as to truth value which is absent from the first. It might be interpreted as meaning "something similar to the established scheme of truth." The one Russian word translating "probable," "vyeroyatno" corresponds to the French word "vraisemblable."

18. The delegate of the United States takes the floor to "concur with the opinion expressed by the delegate of France." Now, as we have mentioned before, the delegate of France merely restated the position taken by the delegates of Australia and of the United States. He did, however, add the little word "therefore," which made the position so much clearer and more forceful that it becomes from now on known as the French position.

19. The delegate of the United States presents a draft resolution for the purpose of "giving concrete form" to opinion and to enable "the Council to dispose of this matter." It would be "the acme of futility" to discuss questions of substance when there is need for an immediate procedural decision.

20. The President says, "Je ne voudrais préjuger en rien la décision que le Conseil de securité va prendre." "Préjuger" remains "pryedugadyvat' " in Russian (etymologically, "to guess before my turn") but becomes "to prejudice"

in English, thus implying that prejudging by a President could not fail to influence the action of the Council. Once again emphasis is shifted from situation to action.

21. The delegate of Australia also expresses his agreement with the delegate of France.

22. "To have no claim" becomes "ne pas pouvoir prétendre" in French and "nye imyeyet' prava," "to have no right," in Russian. The English word "claim" is extremely difficult to translate, as it expresses an entirely nominalistic idea: that of a juridical situation which is neither clearly white nor clearly black, but which on the contrary takes into account the legitimacy of practical adjustment.

IN TRYING to present an over-all evaluation of the meeting described above, one should remember that the various delegates were faced indeed with difficult political problems. On the other hand, however, the men who engaged in the debate described were unquestionably far above the average in preparation for and experience in handling international communication.

The impression obtained is that whereas the French and the Belgian members of the Assembly on the one hand and the American and the Australian on the other have retained their individuality, communication between them has been established; in particular the Frenchman and the Belgian have conclusively shown that they understood not only the position, which would be a policital matter, but also the reasoning, which is a semantic matter, of the Australian and the American. On the contrary, the degree of communication between the Soviet delegate and the delegates of Australia and of the United States appears to be nil. Once again political situations may not be disregarded. When the Soviet delegate states that he does not understand the attitude of his opponents, he may be simply seeking to gain some rhetorical advantage. At the same time, however, the very fact that this form of argumentation should have occurred to him shows that he genuinely believes that it is at least conceivable that people of good will might find the attitude of the Australian and the American delegates difficult to understand.

At the same time no attempt is made by anyone to explain the basis of his manner of thinking; all that the various speakers do is to present arguments which appear pertinent once a certain manner of thinking is accepted.

Thus for instance nobody has made a speech along these lines: "It is true that the basic problems which we are supposed to discuss here are the political problems of the world. Those problems, however, are complex, and their solution cannot be expected to be reached rapidly. In consequence we must separate from those problems questions pertaining to our day-to-day operations within the Council. If we did not do so, we would be unable to accomplish any useful work whatsoever."

The converse was not heard either: "Operations can be fruitful only if they are in agreement with the substance of the situation to which they pertain. Thus it is better to postpone any action than to undertake an action which might make it more difficult for us to analyze the situation correctly and to take in the end such measures as the situation dictates."

The precise point under dispute in this meeting was whether the delegates of certain non-member countries should be invited to participate in the debate. This participation was at first opposed by the Australian delegate in extremely conciliatory terms. It does not appear to be necessary "for the present." The Council should however be ready to reconsider in accordance with possible developments. After the Soviet delegate has taken the floor to suggest that an invitation be extended, this invitation is again opposed by the delegates of the United States and Australia in terms much stronger than those used previously. The Soviet delegate had based his arguments on the subordination of the procedural aspects to substantive ones: as the non-member nations are interested in the substantive aspects, they should participate in all the discussions, and in fact the debate should bear on substance principally. The Western delegates reply that the question is one of procedure over which only members of the Council have jurisdiction. The increasing acrimony of the debate leads to the impression that the Australian and the American delegates oppose more the pattern of thought of the Soviet delegate, with his insistence on discussion and inaction than they do the actual invitation which he champions.

To sum up, it appears that all difficulties of international communication have not been solved in the case above. The purely linguistic problem was solved superbly, inasfar as translation and interpretation may solve it, by the staff of the United Nations Secretariat. The question of patterns of thought, however, does not appear to have been given any attention whatsoever.

Conclusion

IN PRESENTING this paper I do not wish to say that it is possible to arrive at a rigid classification of patterns of thought which would apply in all cases. Neither do I wish to imply that national or cultural groups are characterized by a rigid and constant adherence to definite patterns of thought. Nor again do I wish to imply that there is a rigid correspondence between languages and patterns of thought.

What I hope to have shown is:

1. That there exist correlations between patterns of thought and patterns of expressions and that those correlations may be used in the analysis of patterns of thought.

2. That patterns of thought will be more easily recognized through the connotations appearing in the patterns of expression than in the denotations of statements.

3. That forms taken by language tend in many cases to encourage certain patterns of thought and to discourage others.

4. That connotations appearing in language have at least as much a part in the influence of thought as do denotations.

5. That even an imperfect method of classification may greatly help in analyzing patterns of thought as they appear in concrete cases, and thus to make it easier to overcome some of the obstacles inherent in international communications.

"AT THIS TIME I came to a conclusion which . . . was important to the development of my thinking about politics. This was simply that nearly all human beings have an extremely intermittent grasp on reality. Only a few things, which illustrate their own interests and ideas, are real to them; other things, which are in fact equally real, appear to them as abstractions. . . .

"Not to think in this way demands the most exceptional qualities of judicious-mindedness or of high imaginative understanding. During the Spanish War it dismayed me to notice that I thought like this myself. When I saw photographs of children murdered by the Fascists, I felt furious pity. When the supporters of Franco talked of Red atrocities, I merely felt indignant that people should tell such lies. In the first case I saw corpses, in the second only words. However, I never learned to be unself-critical, and thus I gradually acquired a certain horror of the way in which my own mind worked. It was clear to me that unless I cared about every murdered child impartially, I did not really care about children being murdered at all. . . .

"If I am correct in thinking that human beings have a tendency to think abstractly, and without weighing the human realities which are operated on by their political passions, the mentality of Communists is not very difficult to explain. They have adopted a theory of society which encourages a human vice: to regard their own cause and their own supporters as real, and all other causes and their exponents as abstract examples of outmoded theoretical positions."

STEPHEN SPENDER, in *The God That Failed*

DANGER: MEN TALKING

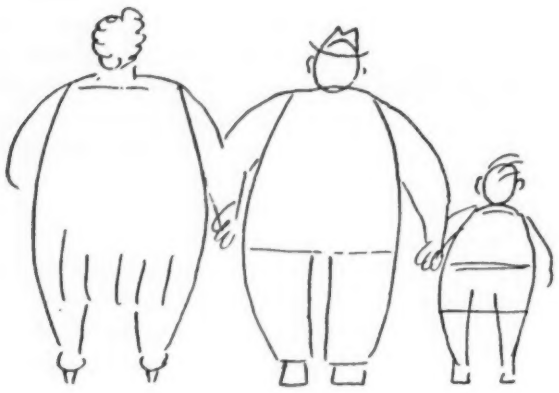
WILLIAM H. SCHNEIDER*

PLATITUDE LICKING THE HAND
OF HIS MASTER

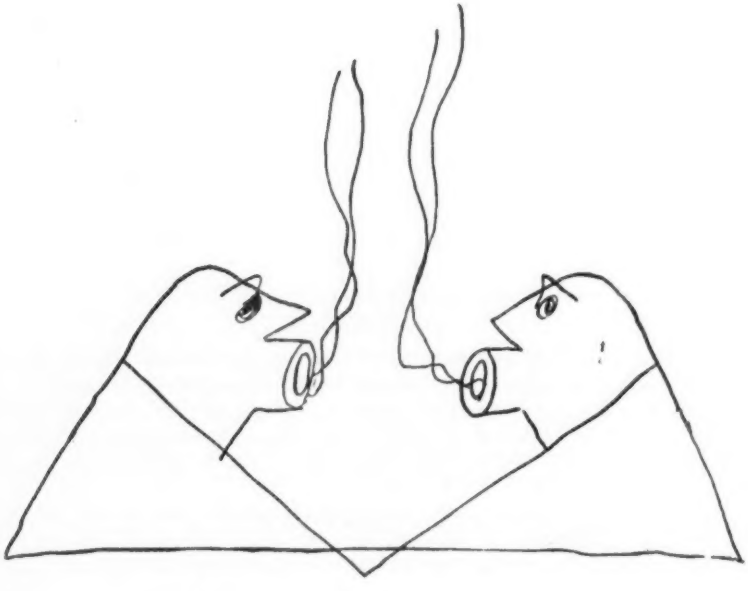
* William H. Schneider, director of art and copy and vice-president of Donahue and Coe of New York, had an exhibit of his illustrations for *Hamlet, Don Quixote,* and Kafka's *The Trial* at the galleries of the Society of Illustrators in New York in December, 1950. According to an account of the show in *Newsweek,* the drawings resulted from his asking himself, "So I can glorify a can of beans. Can I use my talents to say something else?"

The present drawings are further answers to his question. He has now turned his talent for graphic clarification to making general semantics more readily understandable. The Editors are happy to announce that Mr. Schneider has promised further drawings for subsequent issues.

The title for Mr. Schneider's series of drawings was originally used by Stuart Chase, first for a magazine article, later as a chapter heading in *Roads to Agreement.* The Editors are grateful to Mr. Chase for letting us put it to work again in still another context.

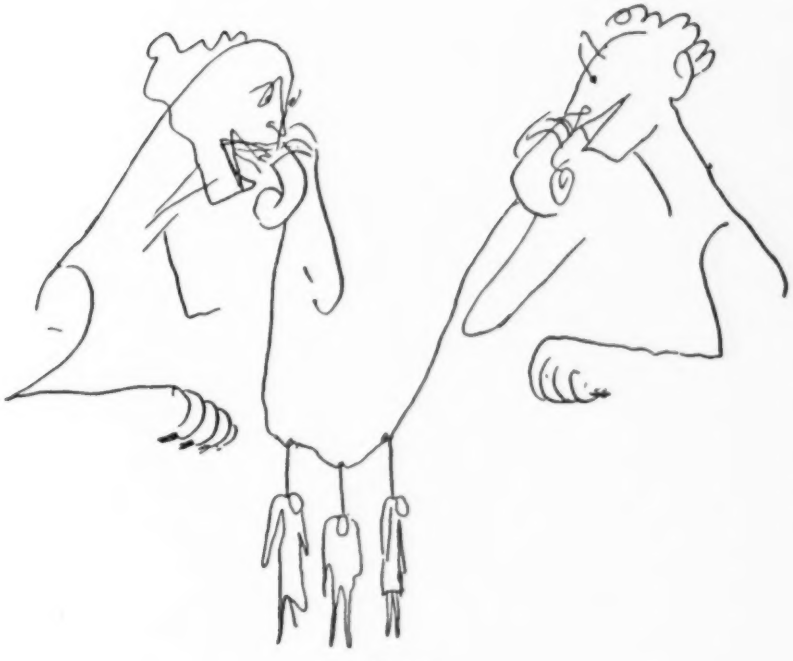


SYLLOGISM:
MAJOR PREMISE, MINOR PREMISE, AND CONCLUSION



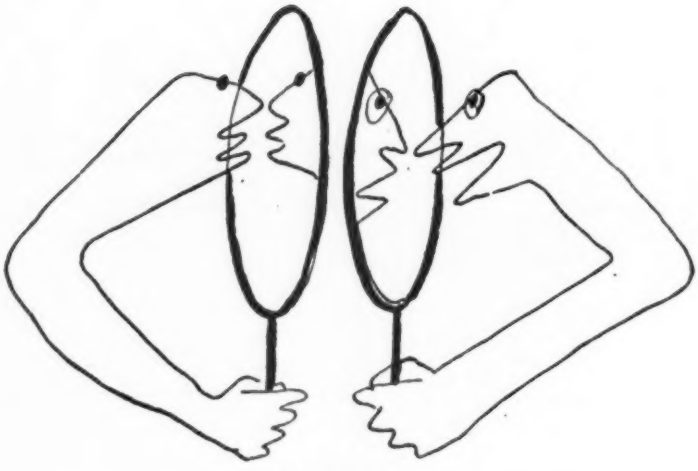
DISPUTANTS UNSCATHED AFTER A VOLLEY
OF SEMANTIC BLANKS AT CLOSE RANGE

THE METAPHYSICIAN

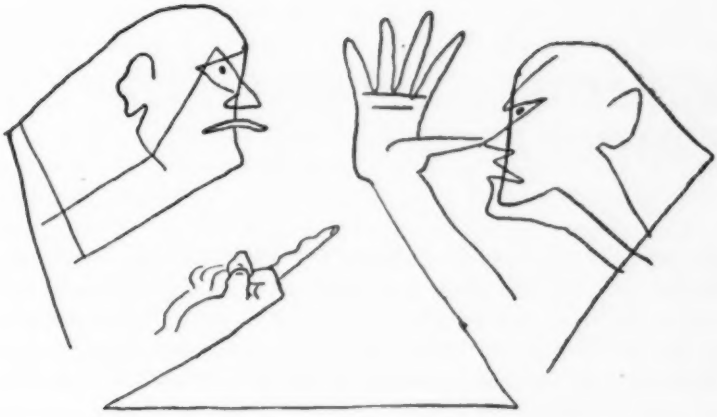


GOSSIP

NON-SEQUITUR



ARGUMENT



LANGUAGE OF AMERICAN-SOVIET DIPLOMACY

DOUBLE ENTENDRE

MECHANISTS, THE SERVANTS OF IMPERIALISM*

B. E. BYKHOVSKY

[EDITORIAL FOREWORD. *Our readers will recall an earlier article by Dr. Bykhovsky entitled "The Morass of Modern Bourgeois Philosophy," which appeared in ETC., VI (1948), pp. 1-15. Although the language of that article was in crass violation of the manners we usually assume in a discussion of intellectual matters, we nevertheless felt it was worthwhile to publish it in order to acquaint our readers with the tone such discussions often assume in the U.S.S.R., especially since the article dealt with semantics, general semantics, and logical positivism.*

The present article by the same author deals with mathematical biology and related subjects. Its tone is identical with that of the preceding article. In fact, a perusal of similar articles on similar subjects (revolving around the philosophy of science) reveal that they all adhere to a common pattern. They are all permeated with a compulsion to discredit at all costs any approach to a scientific question in which the "as-if-ness" of a hypothesis is clearly recognized. This dread of uncertainty expresses itself in vitriolic attacks on all operational, relativistic, and positivistic notions. Hence any attempt to describe a class of phenomena in terms of a consciously abstracted model (the central feature in the method of mathematical biology) is dismissed as a priori *absurd. The dismissal is usually effected through an identification of the approach in question with some odious "ism" (idealism, subjectivism, mechanism, fideism, etc.);*[1] *through declaring the approach to be "in the service of imperialism," and through repeated affirmation of the official "dialectical materialist" dogma: firstly, there exists an "objective reality," which manifests itself on several levels of existence (physical, biological, social) in qualitatively distinct "laws"; secondly, any attempt to point out the experiential content of reality is "idealism"; thirdly, any attempt to apply methods appropriate at one level to the study of another (for example, mathematics in biology or in social science) is illegitimate; fourthly, any attempt to see any value in anything said by any one branded as an "idealist" by Marx, Engels, Lenin, or Stalin is* prima facie *evidence of heresy.*

* Translation by Anatol Rapoport of an article published in *Nauka i Zhizn' (Science and Life)*, Vol. XX, No. 2 (February, 1953), a Russian popular scientific magazine.

[1] Cf. also "Dialectical Materialism and General Semantics" by A. Rapoport in *ETC.* V (1948), pp. 81-104, especially footnote 12.

It is interesting to note that this same dogma, when applied to the Soviet conception of psychology contradicts itself. For the idol of Soviet psychology is I. Pavlov, and justly so, since he has stated in concise and hopeful terms the ideal of behaviorism (i.e., materialistic psychology): to derive psychology from physiology. But the Soviet philosopher of science somehow does not see this program as an inappropriate application of the tools of one science to another (Pavlov has been canonized among Soviet saints). However, when American cyberneticians attempt to derive the principles of purposeful behavior from the principles governing the operation of servo-mechanisms, this, according to Dr. Bykhovsky, is an "American pseudo-science."

As has been repeatedly pointed out in this journal, Soviet philosophy seems to be dominated by a compulsive quest for certainty and a compulsive ambition to discredit the entire intellectual product of the West. Lysenkoism has been the most dramatic illustration of both these compulsions, resulting in the intellectual suicide of some leading Soviet scientists. Recently, however, there have been indications of a partial reversal of this suicidal trend. Repeated criticisms of Lysenko by high Party officials, the restoration to grace of the prominent philosopher Alexandrov (who had been purged for "Western sympathies"), the cordial atmosphere at the recent congress of astronomers in the U.S.S.R., where there was no talk of "bourgeois pseudo-astronomy" may be hopeful signs. In time we will be able to gauge their significance. It should be pointed out, therefore, that the present article appeared immediately before *Stalin's death, i.e., before a certain relaxation of militant provincialism in the U.S.S.R. became apparent.*—A.R.]

IN THEIR STRUGGLE against materialist dialectics, bourgeois reactionaries make use of various ideological weapons. Mechanism is one of them. Together with idealistic metaphysics, mechanism is utilized in capitalist countries for distorting scientific theories and for the defense of imperialism.

Mechanism strives to explain all natural and social phenomena in terms of the laws of mechanics, denying the qualitative diversity of existence and reducing all differences among objects and processes to quantitative differences. Mechanism obliterates the borders between distinct spheres of natural order, which ought to be investigated by distinct natural and social sciences: it rejects the most important position of dialectics: the autonomy of matter, discontinuity of development, and the coming into being of new forms.

Mechanism was at its height in the seventeenth and eighteenth centuries, at the time when mechanics and mathematics were relatively the most developed scientific disciplines. In the time when scholastic metaphysics was dominant, this direction [mechanism] played a definite positive role in the development of science. However, since the middle of the last century, when the great dis-

coveries of natural science, such as the cell structure of organisms, evolution of species, laws of transformations of energy, opened the broadest perspectives of the dialectical cognition of nature, mechanism became a hindrance to scientific progress. The great leaders of the proletariat, Marx and Engels, created a new philosophy, qualitatively different from all the preceding ones, namely dialectical materialism. The birth of Marxism was the greatest discovery of scientific thought, a profound revolution in philosophy. The theory and method of dialectical materialism became the sound foundation of progressive science.

The consequent successes of science proved to be a brilliant confirmation of the fruitfulness of Marxist materialist dialectics. In the beginning of the twentieth century, V. I. Lenin in his ingenious work, *Materialism and Empiriocriticism,* while defending and developing Marxist philosophy, gave an exhaustive clarification of the dialectic-materialist essence of the latest discoveries of physics. All the major achievements of Soviet scientists, primarily Pavlovian psychology dealing with the activity of the higher neural centers and the Michurinist doctrine of variation and heredity represent the triumph of dialectical materialism and deal a crushing blow to all possible manifestations of idealism and mechanism.

EACH NEW STEP in the cognition of the dialectics of nature and of society has taken science ever further away from mechanism and has turned mechanism ever more into an obsolete, reactionary outlook. In the seventeenth century, mechanism was a legitimate historical expression of the immaturity and inadequacy of the science of that time. In contrast to the mechanism of the seventeenth and eighteenth centuries, contemporary mechanism is profoundly reactionary. It finds itself in hopeless contradiction with the demands and problems of modern science which is developing on the basis of the principles of materialist dialectics. The attempts to restore historically obsolete mechanism in the present stage of scientific development is nothing but a form of degradation of bourgeois science. Mechanism is being grasped by the enemies of revolutionary theory. Mechanism has become one of the ideological supports of reaction.

Classical examples of the relentless struggles against mechanism and a devastating critique of this reactionary philosophy are found in many works of J. V. Stalin. Comrade Stalin has exposed the mechanistic revision of Marxism and has demolished the anti-Marxist mechanistic "theory of equilibrium," which had been utilized by the most violent enemies of Leninism, the Bukharinists and the Trotzkyists, in their struggle against the Communist Party and against the construction of socialism in the U.S.S.R.

Of the greatest significance for the struggle against various anti-Marxist theories, including mechanism, are the works of Comrade Stalin entitled "On Dialectical and Historical Materialism," "Marxism and Questions of

Linguistics," and "Economic Problems of Socialism in U.S.S.R." In the latter work, Comrade Stalin demonstrates and profoundly justifies the difference between the essential peculiarities of natural laws and those of the laws of social development and gives an analysis of the fundamental radical differences between the economic laws of socialism and those of capitalism. The works of Comrade Stalin show what immense theoretical and practical significance lies in the understanding of the qualitative uniqueness of objective laws, what danger is contained in mechanism.

DEFEATED and rejected by progressive science, mechanism, however, finds to this day a refuge in capitalist countries, where everything that is obsolete, reactionary, and inimical to socialism and scientific progress is preserved and propagated. Mechanism fits in perfectly with idealistic metaphysics and with every other kind of obscurantism. Essentially, mechanism denies that all sciences are autonomous branches of cognition, each with its own characteristic objective laws. Crude mechanistic and mathematical models serve as substitutes for dialectic reality. Hand in hand with other varieties of reactionary ideology, mechanism today serves the ideological and policital interests of Anglo-American imperialists.

How miserable and trivial in the light of Marxist-Leninist theory appear the pseudo-scientific strainings of modern reactionary mechanists, crawling around scientific problems!

WE HAVE before us the voluminous "works" of one modern American mechanist. Nicolas Rashevsky, a Chicago professor, pulls the wool over the eyes of uninformed simpletons. His "works" by their weight alone are designed to induce respect for professorial erudition, while the long-tailed integral equations, which fill the volumes are able to overwhelm any ignoramus. Professor Rashevsky in his "researches" embraces all sciences at once, biology, psychology, sociology, etc. One of his "major works" is entitled *Mathematical Biophysics,* another *Mathematical Biology of Social Behavior.* He does not even flinch from a subject like the Mathematical Theory of Human Relations! The very nonsensical interweaving of different sciences in the titles of these works shows us with whom we are dealing. An acquaintance with all this pseudo-scientific mumbo-jumbo does not leave a particle of doubt that there is not a grain of real science in these "works."

"In the last analysis," Rashevsky assures us, "every science consists of quantification." In line with this false and harmful mechanistic position, he settles accounts with the various sciences one by one.

"We have sketched," Rashevsky boasts, "a mathematical theory of biological phenomena. We will now undertake the task of developing a mathematical theory of human relations."

Having reduced all the laws of life and organic evolution to a system of equations expressing the "relations of physico-chemical metabolic forces," Rashevsky turns to psychology. He maintains that a physico-chemical interpretation of such phenomenon as the "will" or "desire" is quite possible. He next turns to a "mathematical investigation" of social life and declares, "What is usually called 'social structure' and 'social relations' we can express in quantitative mathematical terms." And he does express them! Everything is there. An integral equation of the stability of social structure, the logarithm of wealth distribution, etc. "Mathematical sociology," Rashevsky pontificates, "in reality becomes a branch of mathematical biology, while history may be reasonably viewed as a branch of paleontology."

The voluminous tracts of Professor Rashevsky serve one purpose, namely to confuse Chicago students. The practical purpose of all this "science" is to use the smoke screen of equations in order to bar the way to the investigations of the objective laws of nature and society in their qualitative diversity.

Bourgeois ideologists use ingenious methods to hide the fact that their wares are nothing but ancient mechanism painted up in accordance with the latest idealistic fashion and offered as the last word in science.

ANOTHER EXAMPLE is found in the quasi-scientific surrogates of Ivan London of Brooklyn College. The low grade writings of London are instructive in that they exemplify the fact that modern mechanism not only does not exclude the crassest idealism, but on the contrary supports it. In his numerous articles, London preaches "quantum biology" and "quantum psychology." In this he operates with the typical illegitimate transference of physical laws into biology and psychology.

Quantum mechanics, London declares, should be applied to biology and psychology. In biology he uses it to explain the "mutations" of the Weismanists-Morganists, who have undermined the scientific understanding of evolution as an orderly process. In psychology, on the basis of the same mechanistic basis, he justifies the "free will," that is the most vicious obscurantism, the denial of the causal determination of man's conscious behavior. Thus mechanism is used to defend crass idealism to reinforce the most reactionary theories. At the same time, all this looks very "modern": shady idealistic and metaphysical rubbish is served to the American reader under the cover of ponderous babbling about "quantum mechanics."

HOWEVER the record of mechanistic zeal belongs probably to Furth, the London physicist, the founder of "ferro-magnetic sociology." Recently Dr. Furth published in an English scientific journal an article expressively entitled "The Physics of Social Equilibrium." Furth's point of departure is some elementary information on the tensile strength of metals. He calls attention to

the well known fact that a piece of metal has lesser strength in its pure state than in alloy with other metals.

"The reason for this, roughly speaking," Furth writes, "is that the process of plastic deformation of solids is a typical instance of cooperation. If the cooperative tendency of neighboring particles is weakened by the formation of spaces among the crystal grains or by the penetration of atoms of another kind, the cooperative processes cease almost instantaneously, as a result of which the structure of the solid is strengthened instead of being weakened as one might expect at first, thought."

Such is the physical "foundation," on which Furth's "theoretical structure" is erected. His ridiculous "scientific discovery" is based on an identification of social processes with the behavior of crystals and magnets. Furth likens the cohesion of people in society to the cohesion of crystal particles of metal. "Whether this interaction of elements has a physical or a non-physical, a conscious or an unconscious character is immaterial," Furth reassuringly declares.

All the trouble in modern society, according to Furth stems from cooperation, the solidarity, the common interests among the individuals of the same nationality, race, or class. However, as physics shows, the cooperation of homogeneous elements results in the weakening of the whole. In social life, Furth warns his readers, such a state of affairs can even lead to a revolution. Today, after Furth's "discovery," the "problem of social stability" is presented in a new light. This "discovery" not only provides a new explanation for social phenomena but is supposed to suggest dependable means for the practical counteraction against dangerous tendencies. To strengthen "social stability," it is necessary to do as the metallurgists do. In terms of social life, this means to oppose class solidarity and national unity.

Dr. Furth is convinced that with the aid of his "ferro-magnetic sociology" he will on the one hand put a "physical" foundation under the activity of the splitters of working class unity and the national unity of the peoples fighting for their independence and on the other he will prove how harmful is the striving for independence of colonial peoples enslaved by British imperialism.

Furth directly warns from a scientific point of view against the dissolution of multinational imperialist states into sovereign national states. Finally his "theory of equilibrium" aims at arming the apologists of capitalistic slavery by a "ferro-magnetic" proof of the "superiority" of class-antagonistic society over a socialist society activated by the force of the moral-political unity of its people. Of course this can be "proved" only by examining the crystal lattice of metals but certainly not by comparing the economic, political, and cultural life of socialist and capitalist societies.

"Let us hope," Furth concludes his "investigation," "that future statesmen will abandon their partisan doctrines in favor of scientific principles if they wish to establish stability and equilibrium in human society."

All this delirium was published in 1952 in the official organ of the British Association for the Advancement of Science.

Such are some examples of the latest "achievements" of bourgeois Anglo-American science on the basis of mechanistic principles.

WE HAVE NOT touched in this article upon one form of mechanism which has received in recent years wide recognition in imperialist countries, namely cybernetics. This American pseudo-science which identifies higher nervous activity with the mechanism of electronic machines, calls for separate consideration.

All these speculations are based on the mechanists' falsification of the investigation of specific laws of nature and society characterized by inner consistencies peculiar to each type of material motion, in that they substitute for such investigation absurd and arbitrary attempts to obliterate the qualitative difference among processes based on altogether different laws of motion. The "scientific value" of the method of mechanistic analogy will become clear if we recall that all superstition, fortune telling, and magic are based on the same method of superficial analogy. Whatever "scientific" data the mechanists may offer in justification of their fantasies, crystallography, quantum mechanics, or the multiplication table, the crude mechanistic analogies will inevitably lead to conclusions which have nothing to do with genuine science.

Rashevsky is a biophysicist, London a psychologist, and Furth a physicist. Each of them does his best to further the decay and degeneration of bourgeois science. Each of them has poured his doze of poison into the spiritual dope being concocted by the ideologists of imperialism. In doing this they all utilized the same methodology, namely reactionary mechanism, the enemy of progress of modern science.

PUPPETS OF CAPITALISTS

(This cartoon accompanied Dr. Bykhovsky's article.)

PROCEDURE FOR "COERCING" AGREEMENT*

IRVING J. LEE

THIS IS a story; but aside from the fact that it employs fictional names; it is a real story. It relates the experiences of another man and myself as we tried to work out a procedure for "coercing" agreement—or, more specifically, an orderly way for producing agreement in a group at odds on some crucial question.

THE COMPANY

THE JOHN MARSIN Company is a little-known industry operating almost imperceptibly in the midst of Chicago's North Side.

In 1938 Marsin's management was worrying about meeting the payroll. By 1949 the executives worried about ever catching up on the increasing backlog of orders. Their labor force had grown from 42 to 138. They now had two buildings. They fabricated small metal parts with enough efficiency to be absorbed in the expanding electronics industry. Relations with the metal workers' union were good. There were no more than the usual vexations connected with labor turnover, material shortages, and equipment breakdowns.

The company had grown so rapidly that the 17 members of the management group had an average service of but three years. Half of the men had been hired since 1946. The president of the company, John Marsin, Sr., had been an automobile mechanic in World War I and had started the company in the basement workshop of his home. John Marsin, Jr., had graduated from Northwestern as an electrical engineer and by 1949 was in charge of all production. John Marsin, Sr. died suddenly in September 1949. John Marsin, Jr. then became president of the company.

My connection with this story began some years earlier in a required public speaking course in the Technological Institute of Northwestern University. John Marsin, Jr. was in the section assigned to me. He gave the required speeches, passed the final exam, and received, with no more charity than was customary, a grade of C. There is nothing in my record book to suggest anything but a routine performance.

* Reprinted, by permission of the author and editors, from *Harvard Business Review*, XXXII (1954), 39-45. Dr. Lee, author of *Language Habits in Human Affairs* (New York, 1941), has recently published a new book, *Customs and Crises in Communication* (New York, 1954).

The Problem

Then, four months after John Jr. became president, he invited me to lunch. I neither remembered nor recognized him. Nevertheless, he assured me immediately that he remembered the course very well and that he was grateful for the passing grade. He had been interested then in electronics, not eloquence. But now he had a problem: how to conduct the meetings of his management group. John Jr. had never done anything like that before, and he was sure that he was fumbling and wasting time. He had licked many problems of production in the shop; and, after all, wasn't this a sort of production problem? No pertinent course was available in the evening division, so we agreed that I should tutor him privately.

He was immediately the sort of student who makes a teacher look good. He read these books on the conduct of group meetings in the following three weeks:

1. Henry M. Busch, *Conference Methods in Industry* (New York: Harper & Brothers, 1949).
2. Harrison S. Elliott, *The Process of Group Thinking* (New York: Association Press, 1928).
3. Robert D. Leigh, *Group Leadership, With Modern Rules of Procedure* (New York: W. W. Norton and Co., Inc., 1936).
4. J. H. McBurney and K. Hance, *The Principles and Methods of Discussion* (New York: Harper & Brothers, 1939).
5. Alfred Dwight Sheffield, *Joining in Public Discussion* (New York: The Macmillan Company, 1922).

Rules of Order

One topic captured his imagination—"parliamentary procedure." Here was something well-designed, organized, usable. He had never known that "rules of order" had been developed in such detail. Our sessions were devoted to an attempt to outline some of the elements—for example, how to introduce business, how to recognize a speaker, how to respect the opinion of the minority, how to postpone and close discussion, how to get a vote. He was enthusiastic because he had found a blueprint by which to control and encourage the progress of discussion. I attended two of his meetings, and we had two post-mortems on his handling of them. At this point I should have graded him A for effort and B-minus for skill.

Before the year was over, John Jr. was shrewd enough to see that he had gained much by the establishment of a design for his sessions. He had a feeling that he knew what he was doing. When I visited a meeting about ten months after our original luncheon, I noticed that he had put his production-mindedness to work on some of the time-taking procedures around motions. When a decision seemed made, he said, "Is there anybody who doesn't see it or want it that way?"

If there was silence, he said "We've voted, gentlemen; should we move on?" He was committed to the values of parliamentary rules, but he neither solemnized nor ritualized them.

Need for Agreement

ALMOST A YEAR later, John Jr. invited me to a second luncheon. This time he had the sales manager and the production chief along. He began the discussion by saying: "I need some more books. Those you recommended before were just what I wanted. But now I want another set." And for the next half-hour he talked about the effects of the fact that the John Marsin Company was still growing. The management group now numbered 24, and the nonmanagement group 257. Orders were way up. "Do we expand to meet them, or do we stay where we are?" "Do we buy the building 8 miles west, or don't we?" "Do we get into that new line or stay with the old lines?" (I hasten to say that these were not the questions I was to provide books for. I was to think about some rather lesser matters.) A free transcription of John Jr.'s conclusions would go something like this:

> We haven't had a meeting in five months that didn't bog down on some basic disagreement about the future plans of the company. Our sales manager here defends one view, our production chief another. We're split right down the middle. I think we're up against honest differences of opinion. We ought to be settling a number of little problems, but we don't because we always get back to the big one. I have one question: How do you get agreement in a situation like this? Those "rules of order" help us get the problems up for consideration, but they don't contribute a thing to getting the problems solved. Who knows anything about that? Give me another list of books.

I provided the following titles:

1. Chester I. Barnard, *The Functions of the Executive* (Cambridge: Harvard University Press, 1940).

2. Stuart Chase, *Men at Work* (New York: Harcourt, Brace and Company, 1945).

3. Alexander Leighton, *Human Relations in a Changing World* (New York: E. P. Dutton & Company, 1949).

4. Paul Pigors, *Effective Communication in Industry* (New York: National Association of Manufacturers, 1949).

5. F. J. Roethlisberger, *Management and Morale* (Cambridge: Harvard University Press, 1941).

6. Ordway Tead, *The Art of Leadership* (New York: McGraw-Hill Book Company, Inc., 1945).

7. George S. Walpole, *Management and Men: A Study of the Theory and Practice of Joint Consultation on All Levels* (Toronto: Clarke, Irwin and Company, Ltd., 1945).

Some time later John Jr. phoned to say that all this was interesting stuff, that he had learned some things, that he'd found one or two useful items—but I really had missed the boat this time. The books were too vague and theoretical. He wanted a blueprint, some organized pattern of approach, something like "those rules of order," but directed this time to settling disagreements efficiently and agreeably.

I found several other items including some theorizing about "universal agreement" that Alfred Korzybski had written in one of his earliest essays, *Time-Binding: The General Theory* (New York, E. P. Dutton & Company, 1924), and continued in somewhat more explicit fashion in *Science and Sanity* (Lancaster, Pennsylvania, The Science Press, 1933). There were ten references in the index of the latter, but only four seemed relevant. I marked the pages; and the next time I met with John Jr., I explained what I thought they meant. We then set up our second tutoring arrangement for some elaboration of these notions in the framework of Korzybski's general semantics.

John Jr. was very clear on how he felt about Korzybski's theorizing. The bits he read seemed fragments of some unknown mosaic. He had no time for speculations. He was looking for some machinery which he could *use*. I must confess that his impatience goaded me into a rescrutiny of Korzybski's views. It is one thing to describe the conditions which lead to disagreement; it is quite another to organize the operations of a group so that those conditions are avoided. As I thought about it, it seemed to me that Korzybski was concerned only with the easier task.

Then—I cannot recall just how it came about except that it was after a somewhat unsatisfactory tutoring session—this question was raised: If John Jr. liked nice ordered procedures, why not translate the general semantics advice into procedures which *must* be followed? In other words, if a group could be "coerced" into a pattern of making motions and voting, why couldn't it be "coerced" into a pattern of behavior so designed as to lessen the tensions of disagreements?

It was on the basis of the hypothesis implied in that question that our procedure was built.

The Procedure

John Jr., as the chairman, was to proceed as usual until he sensed an *impasse*, a situation in which conflict was well marked. This was likely to be any period when the talking seemed to accentuate differences, when there was evidence that the vote would be close, when the minority view was well stated, when people were contradicting each other. At this point he was to announce that the chair was raising a *Question of Privilege for the Group* and until further notice all talking which expressed any difference of opinion would be out of order. The chairman then would give the floor to any proponent of the view

that aroused the controversy, who would be invited to state or restate the position without interruption. No counterstatement, denial, or refutation was to be permitted. The opposition's role was to be limited to the asking of just three kinds of questions, which we stated as set forth below.

Permitted Questions

(1) The opposition may ask *Questions for Clarification.* Questions of this variety are permitted: "What did you mean when you said . . . ?" "Did you say . . . ?" "What exactly is your procedure again?" "You said . . . ; did you mean this . . . ?"

This process is supposed to forestall the impulse to disagreement until after there is an effort at understanding. Since listeners occasionally project private interpretations which turn out to be misinterpretations, this clarifying period may lead to some self-corrections. Further, this is an effort to force listeners to the realization that what is important is what the speaker means, not what a listener might assume he means. It is also a way of emphasizing the belief that a proponent is entitled to every consideration in making his position clear, and that it will not be argued down before it is adequately stated. If listeners can be encouraged to wonder about what speakers mean, that may open rather than freeze the disputed position.

Here Korzybski's analysis of a "semantically disturbed man" served us as a doctrinal starting point:

> When he hears something that he does not like, he does not ask "what do you mean?", but, under the semantic pressure of identification, he ascribes his own meanings to the other fellow's words. For him, words *"are"* "emotionally" overloaded, objectified semantic fetishes, even as to the primitive man who believed in the "magic of words." Upon hearing anything strange, his semantic reaction is undelayed and may appear as, "I disagree with you," or "I don't believe you." There is no reason to be dramatic about any unwelcome statement. One needs definitions and interpretations of such statements, which probably are correct from the speaker's point of view, if we grant him his informations, his undefined terms, the structure of his language and premises which build up his semantic reactions.[1]

(2) The opposition may not introduce any differing judgments or conclusions based on previous experiences during the period of the *Chairman's Privilege.* Listeners may, however, request *Information Concerning the Uniqueness of Particular Characteristics of the Condition or Proposal* under consideration.

It is assumed that a factor in disagreements is the possibility that both parties may bring to the present problem views which were built on experiences in the past which may not apply to the peculiar, particular conditions of the present. It may not be possible for a person to divest himself of those preformed judg-

[1] Alfred Korzybski, *Science and Sanity,* p. 418.

ments as he looks at something which may be different, but the effort may lead to an uncovering of the *locus of disagreement.* If the locus of disagreement can be stated in terms of attitudes from the past rather than in the proposals of the present, that ought to be made manifest.[2]

Listeners may not argue wherein they differ. They may only request information on the case at hand in order to examine the specific, differentiating aspects. The model question is this: In what way is this different from other situations or proposals we have faced?

(3) The opposition may not present criticism of a speaker's inferences nor defend another set. But during the *Chairman's Privilege* period a listener may request information as to whether it is possible to check the speaker's inferences in any nonverbal way. That is, a listener may ask for *Information Concerning the Means of Investigating the Speaker's Assumptions or Predictions.* He may not argue the probability of what may be found.

This is intended to serve as a safeguard against prolonging arguments which might be settled by recourse to an operational solution. (Such a solution, of course, is not feasible when men are discussing purely theoretical matters. But in the confines of the John Marsin Company the percentage of situations which were amenable to some sort of check, pilot study, or small-sample test seemed strikingly large.) It is also a tactic designed to move the talk from that wide-open arena in which agreement is readily lost.

We used Korzybski's rather primitive illustration as our paradigm:

> Let us recall that a noise or written sign, to become a symbol, must stand for *something.* Let us imagine that you, my reader, and myself are engaged in an argument. Before us, on the table, lies something which we usually call a box of matches; you argue that there are matches in this box; I say that there are no matches in it. Our argument can be settled. We open the box and look, and both become convinced. It must be noticed that in our argument we used *words,* because they stood for something; so when we began to argue, the argument could be solved to our mutual satisfaction, since there was a *third* factor, the object, which corresponded to the symbol used, and this settled the dispute. A third factor was present, and agreement became possible. Let us take another example. Let us try to settle the problem: "Is blah-blah a case of tra-tra?" Let us assume that you say "yes" and that I say "no." Can we reach any agreement? It is a real tragedy, of which life is full, that such an argument cannot be solved at all. We used noises, not words. There was *no third* factor for which these noises stood as symbols, and so we could argue endlessly without any possibility of agreement. That the noises may have stood for some *semantic disturbance* is quite a different problem, and in such a case a psycho-pathologist should be consulted, but arguments should stop.[3]

[2] Cf. ibid., pp. 444-445, for further analysis of the role of prior-held judgments in leading to disagreements on "present" circumstances.

[3] Ibid., pp. 81-82.

In short, listeners may ask for some "third factor;" they may not have time to debate the inferential probabilities. The model question is this: Can you tell us of any way of testing your assumptions or predictions?

Put to Use

IT IS no part of this story-report to say or imply that there is any inherent significance in the exact form of the questions to be permitted to the opposition. These were simply items in Korzybski's statement of a "theory of agreement," which John Jr. had been exposed to.

The important thing is that, once the above statements had been made, we had something John Jr. could put to use. After tutoring sessions he was satisfied that he, at least, knew what he had to do. Copies of the above inquiry patterns were distributed to each member of the management group, and John Jr. spent a good part of one meeting explaining them. I attended that meeting and observed that the men received the instructions without marked response. I could not tell whether they merely went along or whether they were going to resist.

What happened? I am limited to certain impressions and conclusions. They have only the reliability which accrues to the fact that John Jr. and I agree on them.

THE RESULTS

THIS Procedure for Agreement was tried out under what appeared to be favorable conditions. The chairman wanted it to work, and the group was accustomed to "procedures." Nevertheless, according to John Jr. it was not until after he had invoked the *Chairman's Privilege* the fourth or fifth time that he thought they understood what was involved. (On the third occasion, for instance, there were expressions that "this stuff was taking too much time.") Even after that they argued and they made counterstatements which he had to rule out of order.

Group acceptance and use of the procedure became marked after a rather defensive use of the "third factor" by the sales manager who had been asked whether he could "show something." He asked for time to run a survey which dramatically revealed that his prediction was in error and that his challengers were correct. From that point on the group seemed persuaded that they had found a way of settling at least one kind of disagreement. In any event, there were no more overt indications of disapproval.

Importance of Time

WHEN John Jr. was still feeling his way in the use of the procedure, he never minded the time it took. He wanted to get "agreement in the group," as he said, "even if it took all day." Before long he began to notice that it did take time. Once, indeed, the statement and questioning on a single issue took

the whole of an afternoon. Was this expenditure of time worth while? Only John Jr. could answer that; this is what he said:

> When my insides acted up, I was out for a week. I should have been at my desk, but after the treatment I felt better. Maybe a disagreement is a sickness. If so, we'd better give it whatever treatment we have."

I should support that view. A basic disagreement in a group is a kind of emergency which, unless corrected, can influence other decisions and operations. Friction breeds friction. Time spent smoking things out now may mean time saved later. This is a conclusion not readily verified by time and motion studies, but it does seem to be a hypothesis worth testing. During the testing, at least, one can justify the time spent. Should our experience ever be at variance with the theory, it will be easy enough to do things differently.

Discipline of Questioning

THE MOST immediately apparent value of the procedure was the recognition by some group members that anyone who had an idea could get a hearing and the opposition could not get going until *after* it had undergone the discipline of asking questions. We did not see this recognition in anything overt in the group. We assumed it from the behavior of some individuals. The head of the purchasing department, for example, invariably voted with the expansionist group, but he had never before initiated a proposal in a meeting. Now he suggested a radical revision in his operations; and it was approved, after he was subjected to a half-hour of rapid-fire inquiry, even though other departments were directly affected by his proposed changes. He told John Jr., "I never felt like giving the plan before because I thought they'd chew it to pieces before I ever got started."

That occasionally a pet project might be withdrawn without loss of "face" by the man who fathered it, after it had been given questioning scrutiny, was indicated by an experience involving the production chief. He wanted to build an addition to the main shop. The disagreement centered on the wisdom of "building it now or later." Searching questions on his assumptions concerning future savings moved him to admit that somewhat less adequate facilities could be rented with construction deferred until the matter could be studied in more detail.

I cannot judge the wisdom of this decision; I wish to call attention to but one element in the situation: the production chief seemed to give up his pet project willingly. Perhaps his original desire was the right one, but the agreement which came out of the discussion established a mood in the whole group that was certainly different from the earlier evidences of strain and dissension.

It is only fair to say that though we have other similar examples of agreement achieved out of disagreement, it would be much too extravagant to

attribute them solely to the adoption of the procedure. One of the unsolved riddles in clinical methodology involves the determination of effects without the use of control groups. Some patients get better without taking any medicine. We are content with this: if dissolution of any impasse follows invoking the *Chairman's Privilege,* we will assume that the procedure was worth while, even though we cannot be sure of the reason why. And we may even begin to study the occasions when the procedure fails.

Reduction of Tension

THIS EXPERIENCE with Korzybski's concepts suggests that following his advice does not coerce agreement as much as provide a setting in which the process is encouraged. We had anticipated tension in the opposition members who were not able to refute or reply. We found it, but we saw many indications that some of it was being released and rechanneled into efforts involving inquiry rather than dissent.

What this means may be explained by the notion of a *contest.* When someone says "yes," the impulse to say "no" may be generated just as readily as the impulse to go along. In the earlier meetings of the John Marsin Company that I attended, I was impressed with the freedom with which the members expressed dissent. A motion seemed to be an invitation to combat. I did not see this as a wholly unhealthy state of affairs, on the ground that it is better to release than repress what is felt. Nevertheless, this way of doing things permitted—indeed it created—a situation in which members tried to "win" over others. This "let's see who will be the victor" mood was for me both the symptom and cause of the trouble.

The new procedure said, in effect, "Contests are not permitted." So we were prepared for all sorts of resistance. What would happen to the energy formerly available for arguments? Since talk was not outlawed but redirected, we think that much of that energy simply went into the questioning process. Some of the question sessions were tense ones, but the heat surrounding a request for an explanation of the uniqueness of what was being proposed did not begin to equal the amount that would have accompanied the flat denial of a statement. If what we saw was at all an accurate representation of what *was* happening (rather than what we wanted to happen), the procedure impelled the members to look a bit more at the issues than at each other. People were then fighting problems, not people.

Increased Cooperation

THE PROCEDURE did seem to offer a formula by which the group could attack particular problems as they came up, especially when the group was at odds. It did not directly provide the means for the solution of the company's "big problem." Whatever the company does, it is involved in a gamble against an

unknown future. But what is important is that an awareness of this fact now seems to be moving the differing factions in the management group to a realization that they must together reach an understanding of the company situation so that they can define and evaluate the risks.

It is doubtless possible to find a more subtle explanation for the increased cooperativeness which appeared in the group with the passage of time. I am, however, satisfied with the notion that the outlawing of the free-for-all habits of arguing and criticizing brought to the fore an elemental understanding of fair play. The procedure helped the members to realize that they had a part in every decision. "I will have a turn someday, so I don't have to feel that today's decision is the end of things for me," is the way that understanding might have been expressed. When each had appreciated that what John Jr. was doing was insurance against unfairness, one big reason for noncooperation was automatically dissolved.

An interesting side effect of this procedure appeared in connection with the sales manager's report on the particular needs of an important customer requiring basic changes in specifications on items considered of secondary importance by the production people. The sales manager, certain of resistance to his view that the items should be supplied, met with the production chief to see whether the objections could "somehow be worked out." That had not happened ever before.

The Implications

Whether it is possible to impose this procedure on other groups with equal profit is a matter about which one can only guess. But one assumption seems justified. Remember that the John Marsin Company group—although not exactly a fair test case since everything seemed to favor the use of means for improving efficiency—was, nevertheless, in quite a state of disharmony. Hence it is reasonable to conclude that, if something could be accomplished there, similar effects might be expected elsewhere.

These effects will not come inevitably and easily by the mere posting of a set of rules. Our experience does not encourage the view that a group will automatically go along with the sort of discipline here proposed; the members must be patiently prepared and instructed. The greatest single source of strength in this one situation was John Jr.'s willingness to take the time and effort to study for himself and explain to the others what was involved. A chairman less interested in stimulating rapport in the whole group would be satisfied with taking votes and letting the majority prevail. This sense of respect for the minority was the prime motivation. Without it there would have been no feeling of need for corrective measures.

With this in mind, the following caveats and suggestions are offered for those interested in "coercing" a group to agreement:

(1) A group should devote at least one or two meetings to consideration of the procedure. Each member should have a copy of the rules, and the chairman ought to read them aloud and explain exactly how he and they should interpret them.

(2) The chairman should be as specific as possible in his explanation of why the procedure is to be tried and what it is intended to do.

(3) The chairman must not invoke the procedure on small matters. It is to be considered an emergency measure to be saved for an impasse which is sharp and deep.

(4) The chairman ought not to compromise the purpose by permitting some argument and refutation in the impasse situation. Our feeling is that a strong ruling that this type of comment is out of order is extremely desirable in the early stages of the use of the procedure.

(5) If agreement does not emerge from disagreement right away, that should not be interpreted as a weakness of the basic strategy. Perhaps the group needs more experience with it before the members see its usefulness.

(6) The chairman must be prepared to face up to his own desire to move the meeting along, to get some kind of decision quickly. Can the other members of the group be expected to wait for the effects of the clarifying process unless he is willing to do so too? I am sure that, if John Jr. had continued to feel uncomfortable, the procedure would never have had a chance.

Above all, before an executive decides to try out this procedure, he ought to have a discussion with himself about some of his own values. Does he believe that the wisdom of the whole group must be reflected in important decisions; or is the wisdom of a numerically large segment enough? Does he believe that it makes no difference how the minority feels? Or does he believe that those who are outvoted will surely go along anyway? Is he willing to consider the short-term desirability of getting business out of the way in relation to the long-range effects of harmony in the group?

Unless he concludes that the expenditure of effort in the quest for the larger values is worth while, he would be well advised to give short consideration to any means whereby the immediate values are to be displaced.

To give birth, to nourish,
To give birth without taking possession,
To act without appropriation,
To be chief among men without managing them—
This is the Mystic Virtue.

LAO-TSE, *The Book of Tao* (trans. Lin Yutang)

IS MAN AN ANIMAL?
*A Study in Persuasive Definition**

JOHN R. KIRK

IT CAN BE argued that the question, "Is man an animal?" is meaningless as it stands. It acquires meaning only when criteria for distinguishing an animal from a non-animal are given. Since such criteria can be given so as to justify both an affirmative and a negative answer to the question, it can be concluded that a dispute based on it is only a matter of terminology.

With this I would agree. But when a dispute has been shown to be a matter of terminology it has *not* thereby been revealed, likewise, as lacking urgency or practical import. In so far as matters of terminology are *merely* so, the framing of definitions to overcome this *merely* verbal dispute will not change that part of the territory language presumes to map. But in some cases the settling of verbal disputes by way of prior agreement on definitions *does alter* the territory. It follows that some admittedly terminological disputes are not *merely* so.

There is no magic in this. Language changes the world through and by way of language-users (cf. John Dewey: *Logic, The Theory of Inquiry*). And we may study a particularly interesting case where the primary part of the world that language changes is the language-user. Such a phenomenon may be expected where language is *about* language-users. *Is man an animal?* The answer, no matter which way it fall, will still be *about* language-users.

My purpose here is not finally to answer the question—though I shall doubtless be unable to restrain a proposal. Rather, I would suggest that the way in which definitions are framed may to a startling degree change the *facts* to which the question ostensibly relates—and that this is a matter of some interest.

Scientific terminology has striven long to be so cool and gutless as to avoid as such either *logotherapy* or *logobane*.[1] One motive for its so doing, so far as I can discern, is relief from responsibility as to the consequences. But other consequences accrue from the making of *this* choice. Since consequences of some

* Presented in briefer form at the annual dinner of the Chicago Chapter, International Society for General Semantics, held in the clubrooms of the Art Institute of Chicago, December 29, 1953.

[1] Malford W. Thewlis, M.D., has defined "logotherapy" as "the therapeutic influence of words upon diseased persons" in his *The Care of the Aged* (Geriatrics), 5th ed. St. Louis (1946). I propose "logobane" to label the pathologic influence of words upon healthy persons. And if a verb be needed, how about "to logohex"?

kind are inescapable with respect to any choice we make—even a choice of language—the courageous thing to do is to explore them. That such inquiry must always remain unfinished and open-ended does not argue against its initiation, for fruits of inquiry usually ripen prior to its closing (as a matter of practical decision).

There is, of course, another and entirely exemplary motive in the reliance of science on normatively neutral language. Though there may be no insuperable difficulty in giving a general description of phenomena which undergo changes by dint of such description (as do, for example, self-fulfilling prophecies), a task of description will be much simpler if it is couched in a language that does not itself cause changes in the phenomena being described. And it is an empirical fact (and I think of great importance to semanticists) that descriptive simplicity is linked, though loosely, to inductive simplicity—thus the righteous striving of scientists in search of parsimony.

For such reasons, perhaps, science has been slow and hesitant in its pronouncements concerning man and human activities. It is possibly for these reasons also that science has largely overlooked a kind of meaning and a kind of truth predicable of sentences which do something other than describe. Such meaning and such truth, I will suggest, are functions of something done by symbols to the people exposed to them and independent of whatever it may be said the symbols are about. It is in the light of such "back action" of symbols on symbol users that the question "Is man an animal?" will be examined.

TWO NOTIONS will recur from time to time: *cognition* and *conation*. The first has to do with knowledge-by-description (cf. William James, Bertrand Russell), the sort of knowledge that science tries to formulate. The German *'wissen'* or the French *'savoir'* refer to this type of knowledge.

The second includes knowledge-by-acquaintance—as expressed by the German *'kennen'* and the French *'connaître'*—and, more importantly, that entire range of activities by which we achieve or try to achieve *homeostasis* (cf. William Ross Ashby; W. Grey Walter), the fulfilling of fundamental needs, the assuaging of thirsts and hungers.

Cognition and conation both antedate language. But with its birth, language acquired both cognitive and conative functions. Infuse the mysteriousness of language with the mysteriousness of knowledge—and there is promise of endless confusion. So let me be foreboding in advance. We shall have to palpate that area of language-use where cognition and conation intersect and sometimes interfere.

With full recognition, then, that we have a verbal dispute on our agenda (but probably one not *merely* verbal) concerning the animality or nonanimality of man, and that such disputes require at some point a *decision* for their settlement—a decision concerning the use of words—let us begin an in-

quiry as though we sought to draft an answer to the question posed in the title.

Immediately we come to grips with the issue of defining "man" and "animal." Our problem is complicated by the fact that these terms are familiar but vague and have emotive meanings which in the history of humankind have varied greatly from time to time and place to place. Sometimes "animal" is a term of pure derision—some apply it pejoratively to certain ethnic minorities. And, for humanists, "man" connotes all that is most worthy in the world.

Whenever words are afflicted with these characteristics—familiarity, vagueness, emotiveness—they are ripe for what Charles Stevenson has called a *persuasive definition* (cf. *Ethics and Language*).

Persuasive definitions are dangerous. Not that they are always bad. Not infrequently they are guideposts on the pathways of intellectual progress. Much of the work of applied semanticists and scientific philosophers is that of framing new and fruitful definitions of certain key concepts, and these are often, frankly, persuasive in character. But there are, surely, different brands of persuasion, and the purposes of our persuasive appeals can possess varying degrees of worthiness. We will look, now, at a few persuasive definitions, examine their mechanics, and note what influence—for good or evil—they have or may have.

A PRAVDA editorial writer once wrote: "Real liberty consists in the opportunity to read *Pravda.*" One of Hitler's henchmen said: "Freedom consists in following der Fuehrer." Some months ago a spokesman for The National Association of Manufacturers opined: "The true American is one who believes in free-enterprise capitalism." And we have recently heard: "Genuine Americanism is McCarthyism."

Stevenson has noted that Aldous Huxley well understood the mechanics of the persuasive definition (pp. 214-215). He cites Mr. Huxley's book, *Eyeless in Gaza,* in which an authority-bound character says:

> "But if you want to be free, you've got to be a prisoner.
> It's the condition of freedom—true freedom."

But Anthony, a man of semantic insight, replies:

> "True freedom! I always love that kind of argument. The contrary of a thing isn't the contrary; oh, dear me no! It's the thing itself, but as it *truly* is. Ask any die-hard what conservatism is; he'll tell you it's *true* socialism. And the brewer's trade papers; they're full of articles about the beauty of true temperance. Ordinary temperance is just gross refusal to drink; but true temperance, *true* temperance is something much more refined. True temperance is a bottle of claret with each meal and three double whiskies after dinner . . . What's in a name? The answer is, practically everything, if the name's a good one. Freedom's a marvelous name. That's why you're so anxious to make use of it. You think that, if you call imprisonment true freedom, people will be attracted to the prison. And the worst of it is you're quite right."

WE SEE the pattern. First you take a familiar, vague, and emotively-moving word. If it is a good word—has positive emotive polarity—then you so define it that approval will be bestowed on some pet project, theory, or institution. If it is a bad word then disapproval may be directed, *via* definition, on some target chosen in advance.

"Communism" is, these days, a very bad word—despite the fact that early Christians were communists. So, of course, is "socialism"—despite the fact that socialists in Italy have, thus far, prevented decisive communist victories there. In consequence, the following are formulas with which, at the moment, if they are repeated often, you may effectively damn almost any institution except, possibly, motherhood: (1) "X is really Communism." (2) "X is really Socialism."

"Charity," "love," "courage"—these are good words. With their help one can divert attention from matters one does not wish to be looked at closely. Simply frame persuasive definitions like the following:

"Charity, in the true sense of the word, means the giving not of gold but of understanding." Here there has been a subtle tampering with the meaning of "charity," one ever so convenient to those who like to keep their purse-strings tight.

"True love is the union between minds alone." A handy definition for one whose other unions are ineffective.

"Real courage is strength against adverse public opinion." Something like this is sometimes voiced by pacifists and conscientious objectors. But while it is doubtless the case that standing up against adverse public opinion takes courage —and often in the face of great hardship—it seems ungenerous to impute a lack of real courage to men facing bullets and flame-throwers.

Persuasive definitions are instruments for altering attitudes with respect to non-linguistic things. At the beginning of such campaigns they can often be spotted by their use of such words as "true," "truly," "real," "really," "genuine," etc. Later, when the new attitude has crystallized, such words can safely be dropped. No one in the Soviet Union has to convince its citizens that theirs is a *true* democracy; such sentiments are for export only.

THUS FAR, the persuasive definitions we have examined have been designed by those with private axes to grind. Persuasive definitions, however, are not confined to such situations. Any explicit definition aimed at inducing a certain orientation can be called persuasive. Such have been the explicit operational definitions of scientific concepts: their persuasive force has been in the direction of abandoning loose, intuitive habits of thinking in favor of rigorous, objective analysis. The business of tailoring explicit definitions so that they implement our purposes when we are using the concept-to-be-defined in problem-solving behavior is called *explication*.

Often, the most familiar words are most in need of explication. All of us,

for example, make important use of the concept "probability." Such words as "probable" and "probably" are everyday terms. And yet, when we try to define this notion, we run head-on into contradictions and circularities. The world should be grateful to such men as Hans Reichenbach, Ernest Nagel, and Rudolf Carnap for making progress in explicating this puzzling concept.

Likewise, the classical physicist's definitions of such concepts as "distance," "time," "space," "ether," and "simultaneity"—all very vulgar terms—long infected classical physics with a largely hidden host of inconsistencies. Einstein's brilliant explications of these concepts (some of them—like "ether"—did not survive at all) may not be in harmony with the inclinations of untutored common sense, but they did banish the contradictions, for a time at least, from physics.

The explication of a concept will almost always constitute a persuasive definition. The definition will be so novel, so much at variance with intuitive notions, that it will require persuasion to get adopted. If the aim of an explication be cognitive in nature—that of increasing our knowledge—then, if the explicator does his work in a responsible manner, the persuasion will do justice to the canons of logic. It will not resort to cheap oratorical tricks. The purpose of the persuasion is not, in this case, that of the private profit of the explicator or his employer but, rather, it is for the benefit and ultimate enlightment of society-at-large.

PERHAPS it will now seem less strange that the terms "man" and "animal" may need explicating. The former, I suspect, rather more than the latter, because most animals do not get upset about the way they are "defined" whereas man is often touchy about it.

So far as I know, the first in modern times to tackle this problem was Alfred Korzybski. Others, to be sure, had offered off-the-cuff definitions, but Korzybski was the first since Aristotle thoroughly to appreciate the ramifications of and the responsibility entailed by an explication of the concept, "man." This work is given in detail in Korzybski's *Manhood of Humanity*.

An odd circumstance lent complication to his task. Although we may enjoy no deep understanding of what the term "probability" denotes, that term still has a highly invariant denotation (or, if Carnap be correct, two denotations). At any rate, the denotation does not change as a result of our making attempts to understand what it is. By contrast, *what man is* depends, and sensitively, on *what man thinks he is.*

MODERN ANTHROPOLOGY and sociology have shown clearly that human nature —the network of biological, physiological, psychological, and sociological laws necessary and sufficient to explain human behavior (of which too few are as yet formulated)—is less fixed, less stringent, less restrictive than it had been

thought. It is the nature of some societies to be peaceful, the nature of others to be warlike (cf. Norman Angell; Margaret Mead; Gregory Bateson; Edward C. Tolman). Some cultures prohibit incest. Others enforce it—among members of the ruling house. Continuation of such summary may be telescoped in the statement: human beings are a varied lot.

However the enormous variability of human nature is not evident to most individuals. Within each culture a man begins to see and feel himself in a particular role (cf. *generalized other* and *looking-glass self* of George Herbert Mead and Charles Horton Cooley). Soon, as Sigmund Freud warns us in *Civilization and its Discontents,* the civilization armors the individual and prevents his exploration of further avenues of development in thought and feeling. For such reasons—an individual encapsulates himself with *thoughts* about himself that largely *make* him what he is. Such thoughts are neither incisive nor critical and prompt a Socrates or a Freud to demand: "Know thyself!" But self-knowledge of this sterner sort is explosive stuff. Once a man understands himself—fathoms the artificiality of the myriad constraints against instinct which civilizations are chiefly concerned to impose—he may understand only what he *was* and be something altogether *new* as a result of this understanding. Thus the denotation of "man" shifts as soon as we get our sights firmly fixed on it.

It is in this light that one must appraise Korzybski's general semantics. As he formulated it, it was both *theory* and *therapy.* As therapy it seeks, of course, to improve man, but not as viewed in the value-perspective of a particular culture or society. Its aim is *not* adjustment, that tool of the totalitarian, that slogan of mass-man. Its measure of success is *not* the happiness of the well-adjusted. Its postulates make it possible to say with sense that a whole society is sick or unsane, and in such milieu the life of the sane man may be a hard one. Its goal, rather than adjustment, is health, that openness to experience, that reality-orientation, that productivity and increase in survivability that will equip men for the stars.

As theory, general semantics seeks to describe man not only as he is in his particular corner of space-time but as he has been, will be, or might be under various conditions—conditions, for example, including man's adoption or rejection of the theory in question. In this way, Korzybski hoped, man could be kept firmly in the focus of an analytic spotlight despite movements and bewildering metamorphoses resulting from the illumination.

KORZYBSKI wished to couch his theory in such terms that it would both be "true" and be capable of being psychically assimilated, internalized, felt in one's bones, at which point it would take on therapeutic significance and automatically give birth to a new type of human activity—one destructive of neither knowledge nor of one's fellow men. Korzybski was well aware that destructiveness is a frequent feature of the reaction-formations indulged by the neurotic

when confronted by a truth for which he is not emotionally prepared. You simply do not tell a paranoiac that he is paranoid. Thus his formulations, if they were to be directed to all of us rather than to individual patients, had to combine theory with therapy. In short, his was a theory which attempted to formulate the conditions of man's maturity and it was a therapy designed to activate those conditions.

Korzybski did not, I think, wholly succeed. But there has been inadequate appreciation of the detail and sweep of his attempt.

THERE ARE two kinds of truth, and they are not always easy to harmonize. Indeed, they are not always easy to distinguish but become entangled with each other under the same label to our great detriment and confusion.

First, there is *cognitive truth.* This concept has been given a materially adequate and formally satisfactory definition among others by Alfred Tarski.[2] This is the sort of truth we have in mind when we say of the sentence "coal is black" that it is true. The sole value of cognitive truth *as such* lies in its giving us powers of prediction (or explanation). This is the kind of truth that we are—or at least think we are—ordinarily concerned with, and it is interesting that it is the only kind of truth netted by the questionnaires of Arne Naess in his exhaustive empirical study of what people say they mean by the word "truth." [3]

But there is another kind of truth, *conative truth,* predicable, again, of certain sentences and symbol-arrays (in the broadest sense—including music, painting, sculpture, etc.) and known to poets, artists, mystics, and the religiously devout. George Eliot called it "the truth of feeling," and we might define it, at least provisionally, as *the characteristics of a symbol-array that fulfill an immediate psychic need.*

There is, of course, a connection between these two kinds of truth expressed hazily by Keats's remarks on truth and beauty; but if these remarks by Keats are to be taken as cognitively true, nothing but confusion will result. Expressive of the distinction between these two kinds of truth is the remark attributed to Santayana: "There is no God, and Mary is His Mother." That, on the face of it, is cognitively nonsense or, at best, contradictory. But, for Santayana, who was a tough-minded philosopher while being, at the same time, sensitive to beauty and devoutly religious, it was conatively true.

One might now characterize Korzybski's task as that of formulating a comprehensive theory of man (with special reference to his evaluation of symbols)

[2] "Der Wahrheitsbegriff in den formalisierten Sprachen," *Studia Philosophica,* 1 (1935), 261-405. See also his "The Semantic Conception of Truth" in (1) Linsky: *Semantics and the Philosophy of Language* (1952), (2) Feigl and Sellars: *Readings in Philosophical Analysis* (1949), and (as considerably abridged) (3) Lee: *The Language of Wisdom and Folly* (1949).

[3] "'Truth' as Conceived by Those Who Are Not Professional Philosophers," *Skrifter utgitt av Det Norske Videnskaps-Akademi i Oslo,* II. *Hist.-Filos. Klasse,* IV, Oslo (1938).

which would be cognitively true *of* all men and conatively true *for* every man or at least most men. Having it put this way, perhaps we can appreciate the difficulties.

What is cognitively true may be conatively false, and this can pose pedagogical problems of great delicacy. Not infrequently the publication of cognitive truth results in psychic shocks. Often, cognitively true theories are propagated which, at least for a time, do anything but ameliorate the human situation. In this connection we have only to think of Galileo, Darwin, Pasteur, Freud, and Einstein. Cognitive truth is often toxic to the immature. Indeed, an important criterion of maturity is the ability to "take" cognitive truths.

But the mature do not require therapy, so Korzybski's self-assignment was the dual one of developing a theory of human maturity in terms that would promote rather than hinder that maturity.

IT WAS of the highest theoretical significance that Korzybski emphasized that man was a *time-binding* class of life. He did not deny that man is also, like the plants, a chemistry-binding class nor, like the animals, a space-binder. But he insisted, and rightly, that man is the only life-form that binds time. He was correct, also, in tracing the mechanism of time-binding to language, though language seems to be only a necessary and not a sufficient condition. Were it not for language we could not bind time. Each generation would have to begin its cognitive activity in a *brutely* empirical way, from scratch, unable to contact and assimilate the cognitive accretions of predecessors.

Too, via time-binding, the group of individual organisms making up mankind constitute a long-lived entity exhibiting organismal characteristics (growth, learning, etc.) of its own—R. W. Gerard refers to it as an *epi-organism*. Through a study of this time-binding process (and its possible deformations) we can come to know the traits and personality of the human epi-organism and its state of health, and we already have learned enough to confute the notion of Thomas Hobbes that the epi-organism is simply the individual "writ large." The stupidity of the epi-organism in the face of the relative enlightment of the individual organisms that compose it constitutes a problem of organization of the components, a problem of great urgency.

But Korzybski decided to classify man as a time-binding *non-animal* instead of a time-binding *animal*. Why?

I suspect a *therapeutic* rather than *theoretical* motivation. Korzybski feared, apparently, that a man who thought of himself as an animal would be likely to adopt tooth-and-claw methods of survival—would, in Hitlerian fashion, overemphasize the survival value of *lebensraum* simply because the primary business of lions, tigers, and even paramecia is that of space-binding. In this, I think, Korzybski was naive.

Though I reaffirm the dependency of what man is on what he thinks he is,

I would suggest, at risk of seeming peevish, that the laws of this dependency are considerably more complicated than indicated above. The dependency can be inverted . . . even perverted. When man gloried in thinking himself *the* rational animal his behavior was frequently the most irrational—he indulged, for example, in religious wars. He burned witches, and Giordano Bruno, at the stake. When, throughout a considerable era, he convinced himself that he was not an animal at all (a view reflected in ordinary language and not uncommon among Protestant fundamentalists) but only a little lower than the angels he would often be—but always, of course, in the *name* of the best causes—the most bestial.

Perhaps more knowledge must be gathered before an effective therapy can be designed. The point illustrates an important priority of cognitive over conative truth. It may well be that for *every* individual the conative is much more important that the cognitive, but for *all* individuals the cognitive is the instrument by which the conative is attained in any way other than by random and chaotic happenstance. We may not enjoy the psychic shocks that accompany break-throughs on the frontiers of knowledge, but whatever we do enjoy we can obtain systematically only by planning (whether we do this with tears in our eyes, like Conservatives, or joyously, like Liberals). And our plans, to be effective, must be based on the knowledge that just such break-throughs make possible.

WE ARE NOW in that time of total danger which Korzybski during the days of the gathering storm attempted, in the realm of his special competency, to thwart. *All* individuals in the membership of mankind are in real and imminent peril of extinction.

If we view this prospect with sadness and terror, we can be forgiving of each other. But we might perhaps find ourselves in better position for planning if we first recollect that Nature knows no nostalgia—*animal*-species have begun and ended with neither their birth nor death attended by trumpets or other ceremonious sign. Every man may take smug and conative solace in the thought that since he is not an animal, the rise and fall of former species are of no consequence to him; he need not know biology; he can be soothed with that thin slice of Nature's history comprising a few recent millennia in which human beings have created weapons only to create counter-weapons and so provided a wide spectatorship with an exciting and evolving sport—and with really quite negligible casualties.

But if there is a danger, if the sport has taken on a new dimension—spectator-participation—we might better recognize it, come to grips with it, and perhaps circumvent it, by returning to cognition. And, unpalatable as it may be to some, human beings, many of them lately more *homo* than *sapiens*, resemble, suspiciously, an *animal*-species.

For as it turned out, we have continued to behave like lions and tigers. The Korzybskian entreaty—and those of others—to the effect that we are *not* animals did not mesmerize away our lion and tiger-like propensities. If anything, such entreaties, notable among puritans of all ages, have converted us into something like *frustrated* lions and tigers.

What is to blame for the frustration? Reason? Reason, you know, has been taken to distinguish men from animals. But while an electronic computing machine can in some sense reason—and it is hardly an animal—the intellectual abilities of the higher mammals do not diverge so widely from the human as to make the distinction other than one of degree. And what of language? Great emphasis has been placed on man's possession of language. But it has been revealed quite recently that both chicks and bees keep man from being its unique possessor. I would absolve neither human reason nor human language from a charge of introducing complexity into our patterns of conation; but a special suspicion, I believe, should be directed to a traditional mark of distinction between animals and men: the exclusive possession by the latter of a *soul*.

One might suppose that a distinction thus drawn by a "meaningless mark" would be no distinction at all and therefore generate no difficulties. Actually, the trouble brews from what is *said* about the supposed distinction. Influential factions in the world delight, for purely private reasons, to define "man" in such a way that men are not animals. "Animals lack souls," it is said, "whereas man does not." The main result is that men submit themselves to the ministrations of professional users of the term "soul," a concept with wide conative import but of doubtful cognitive significance. To have cognitive significance a concept must germinate, fructify. Souls appear too aseptic for the purpose. These professionals are often kindly and well-intentioned. But in the light of oft-recurrent material in psychiatric studies I am, for one, moved to doubt the truth or even meaningfulness of the theory, if any, in terms of which these professionals would influence the conation of others.

I am aware, of course, that a religious sect of some magnitude, the Roman Catholic Church, teaches that man is an animal but that he differs from *other* animals in having a soul. This position is relatively innocuous. It grants a greater accessibility of the sciences to man and his problems. It creates conflicts only in that twilight-zone where some would identify the non-operational concept "soul" with other concepts of similar conative meaning but at least partially under operational control by the psychologist and psychiatrist.

There are areas of Asia in which the conditions of human life are so painful that training in the mortification of the flesh and in the suppression of the senses may well serve as a survival-mechanism. Western science and technology have gone far in removing or postponing the Malthusian fates which foster this exotic masochism. Previous to Paul, Christianity was largely uninfected. But now the sensuousness of Solomon makes preachers blush and dismiss it with the epithet

"sensual," and the troubles of Job are looked upon not as the sickness it surely was but as a sacrament—his boils the badges of sanctity. If autogenous vaccines of staphylococcus aureus will not cure boils, psychoanalysis probably will, but is there not a pervasive notion in religious circles that the latter mode of therapy is a tool of the devil?

Amidst the rigors of the Ancient East a self-induced catalepsy may have proved strategic from time to time, but with reference to the scientific culture ours attempts to be I frankly fear that Dylan Thomas was right about "all the deadly virtues." And if we must appeal to Gertrude Stein's "a rose is a rose is a rose . . ." to remind us of the richness of the percepts this flower has to offer, our mechanisms-of-conation desperately need repair.

In all this, perhaps, lie sources of our frustration. If we *should* be animals while being encouraged to behave like statues, anomalies might be expected.

IF, THEREFORE, I respectfully suggest that "man" and "animal" be so defined as not to preclude, on empirical grounds, that man is an animal, it would spring from considerations stronger than man's backbone or his animal ancestry —though these facts are highly relevant. Nor do I deny that these definitions may be *persuasive* in the technical sense to which Stevenson has called attention. But I would justify this persuasion on the ground of the rich yield of inferences about man and his potentialities which would flow from this empirical postulate. In brief, I would claim to be grinding no private axe. Rather, I would consider the result an explication.

It is not that I would wish to deny man's superiority over other animals—I have taken pains elsewhere to assert it.[4] It is not that time-binding and cultural inheritance are not immensely novel and staggeringly important. It is not that man as a *cognizer,* a knowledge-getter, is not superlative on the planet.

It is only that there is strong inductive presumption, which some are anxious to deny, that the gains medicine has made on the basis of its study of frogs, dogs, cats, rats, and guinea pigs may be reflected, and on the basis of similar study, in the psychological and sociological wings of human engineering. It is only that a coolly cognitive appraisal of the myriad similarities between the members of animalhood and those of manhood may prove a necessary ingredient in any plan that would henceforth protect humanity from its epi-organismic suicidal tendencies. It is only that as a *conator,* a sentient entity, man seems confused and sick, and a better-founded *theory* of man-as-animal may now be required for his wiser *therapy.*

In Korzybski's famous emphasis on prediction there may be irony. He may have abandoned a large area of predictiveness relevant to human activity by denying the animality of man. And perhaps, in so doing, he gave aid and comfort to those who from the deeps of neuroses have distorted and truncated the

[4] "Communication Theory and Methods of Fixing Belief," ETC., X (1953), 298-305.

natural patterns of human conation. I concede that the word "natural" is here used in a sense more restrictive than that of "physically possible" and that it has a normative import. I concede, also, that the natural is not to be taken as identical with the mean or the average, though the latter data are highly relevant, nonetheless, in the determination of the former.

To demarcate the boundary conditions of this naturalness, cognition, uncontaminated by wishful or fearful thinking, must surely be enlisted. It may develop that whatever be natural about human patterns of conation may yet enjoy wide variability. It is possible—indeed, even probable—that by no means all the natural permutations and combinations have yet occurred in culture. Thus, old hopes may then show chance of new fulfillments. Even Freud's thesis in *Civilization and its Discontents* (to the effect that civilizations can not endure without rigid prohibitions and proscriptions with reference to the conations of individuals and that these, in turn, will generate neuroses) might be demonstrated as not the law of nature it first appeared to be but, instead, an unhappy allusion to our current and contingent civilization.

IF IT HAS SEEMED I have sought cognition at the expense of matters conative, this is an error. Indeed, at this point in history, human conation may constitute the single most important study for human cognition. We can agree with Korzybski, and enthusiastically, that it is infantile to permit our powers of prediction to go to pot and to expect values to be tossed in our laps, adventitiously, like manna from heaven. But the man who does nothing but make predictions —no matter how precise—may be missing something. He would be less than a man, more nearly like the electronic computing machine.

When we become exclusively *means-end-oriented,* there is a tendency for our *valuing* of every end-in-view to evaporate at the time they become ends-in-fact. Such people are likely to dismiss both amorous dalliance and esthetic discourse as bohemian nonsense. The fine arts they find not foods but drugs. And after they have amassed a few million dollars by dint of their extraordinary powers as predictors, they not infrequently commit suicide. Freud recognized that adult happiness is the postponed fulfillment of infantile wishes and that money, since it is not an infantile wish, does not yield happiness. Perhaps we see why infantile wishes are so important. The only interim in which we were allowed to behave wholeheartedly like the *animals* we are was when we were very young children.[5]

S. I. Hayakawa described to me, recently, a lecture of Korzybski's. Pointing his finger at a young girl in the front row Korzybski asked: "Do you want

[5] Ordinary language recognizes two aspects of children: their *childlikeness* and their *childishness.* The former refers to their conations, the directness and simplicity of their enjoyments, and it is in this respect that "of such is the kingdom of heaven." The latter refers to their cognitive equipment, their grasp of consequences, and in this respect they are quite the little criminals that Diderot said they were.

predictability?" The girl replied: "I *like* surprises!" Retorted Korzybski: "Infantile!" I trust that the Freudian significance and perhaps *animal* wisdom of her remark will not go unappreciated.

Several times I have made passing reference to electronic computers. A particularly potent one is known as the MANIAC, and I have been told that during its test run the many rows of green lights on the control panel of this apparatus conspired to flash a repeated message: I WANT A MATE! . . . I WANT A MATE! I am convinced the story is apocryphal.

Frankly, though I hold in high regard our human powers of prediction and control, I revel in the notion that we are *animals* possessed of this capacity. The electronic computers can also make predictions, swiftly, accurately, amazingly. They can reproduce themselves (as Turing and von Neumann have shown). Time-binding can be instituted in the realm of these computers (by linking the memory-outputs of parent-predictors to the memory-inputs of offspring-predictors). But thus far, at least, they haven't made love.

When the world lives in accord with Tao,
Racing horses are turned back to haul refuse carts.
When the world lives not in accord with Tao,
Cavalry abounds in the countryside.

LAO-TSE, *The Book of Tao* (trans. Lin Yutang)

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When a sieve or a net is placed in a current of liquid it allows certain things to permeate it and keep others out; it might be said to make a choice, but assuredly not to alter the forms of things. This is function of the knower, of the living being face to face with the cosmic reality of his environment. He does not allow himself, without much ado, to be permeated by reality, as would the imaginary rational entity created by rationalist definitions. Nor does he invent an illusory reality. His function is clearly selective. From the infinite number of elements which integrate reality the individual or receiving apparatus admits a certain proportion, whose form and substance coincide with the meshes of his sensitised net. The rest, whether phenomena, facts or truths, remain beyond him. He knows nothing of them and does not perceive them.

JOSE ORTEGA Y GASSET, *The Modern Theme*

☆ DISCUSSION ☆

ON CHILDREN'S CULTURE

KAZUO HAYASHI *

IN THE SUMMER of 1953, when your editor, Dr. S. I. Hayakawa, visited Japan, I asked him if such a term as *children's culture* was in use in America. He replied: "No, I have not heard that expression. What do you mean by it?" At the time I found it difficult to convey the full meaning of the concept, but I should now like to write on this matter.

Children's culture comprehends first of all the artifacts adults give to children: toys, television, cinema, puppet-shows, paper-picture shows, radio, picture-books, comic strips, musical instruments, recordings, juvenile narratives, etc. It also embraces children's activities such as sports and games, dramatizations, rhythmic dance, singing, handiwork, drawing, literary activities, etc. Thirdly, the phrase also denotes education and instruction in the use of these cultural goods. And fourthly, the concept also suggests the organization of children's activities, the policies and institutions which lend "system" to their life. Thus, as you see, *children's culture* is a term which, in Japan, is used at higher levels of abstraction.

An American, pondering the list of items which, I have suggested, comprise children's culture, will doubtless associate it with such aspects of his own experience as club and school activity, audio-visual aids to study and training, children's parties, team-projects, etc. He will be right. This is the current connotation of the phrase in Japan too. But in Japan the term has been in use for a long time—pre-war, war, and post-war—and has had radically different significations; thus it requires date-indexing. At present I mean by it, broadly speaking, the material and mental milieu of children. More narrowly: their enjoyment of cultural goods or their creation of them as evinced primarily in play-activity.

THE ROLE of education is that of paving the way for adult culture. Education is by no means play. It has, by contrast, some of the characteristics of a task. On the other hand, we believe that children have independent personalities and live their own lives as well as lives with adults and that therefore it is sometimes

* Professor Hayashi is a member of the department of home economics, Osaka City University, Osaka, Japan. His special interest is in the cultural development of children through activities and materials ouside the classroom.

necessary to stand on the side of children. And, with children, *play* constitutes the essential quality of their life. Linked with play-activity as it is, children's culture should be viewed in teleological perspective. It is not a pause, a delay, a marking-of-time on the path to adult responsibility. It is, rather, the soil in which such growth and development are to be expected. Children's culture may lead children in the direction of the ideal state. It is nothing but life culture having children as its subjects.

WHY DOES present-day Japan find this abstract term useful? Though its signification has varied with the ages, its current use reflects a recognition of the need to extricate children from unfavorable conditions which, on every side have hindered attainment of envisaged goals. The term permits us to think of the many facets of children's life, and of their possible organization and integration to draw children nearer and nearer to an ideal state, without our having to think of these facets separately and in detail. Of course, it must be remembered that there is the postulate of democracy at the bottom of this thought.

In 1951, we laid down the Children's Charter and formulated the duties of adults with respect to children. However, this is a map of the future and not an actual territory. When some Japanese get angry and say that present conditions of children are unlike those described in the charter, they confuse directive language with actual conditions. In addition to the Charter we have also the annual conference of children's culture under the auspices of the Department of Education. There all matters concerning children's culture are discussed, and the decisions which emerge are presented to the Minister of Education. The first clause of the 1952 decision is to the effect that we establish a chair of children's culture in universities which have courses in the training of teachers. Thereupon, the section of social education in the Department of Education requested specialists to draft a lecture-plan. They made one draft, but I think it will be some time before this draft will come into effect.

I HAVE NOW to connect children's culture with general semantics. The draft I mentioned above is nothing but an enumeration of the items concerning children's culture. There is as yet no principle or theory to unify these items and so systematize the contents of the lectures. Where shall we search for such a principle?

The center of children's culture is in cultural goods and these are material, but their role is that of vehicles to carry various symbols. Children enjoy symbols given them by adults, and children themselves produce symbols by their own voluntary and creative activities. In a sense, man is an animal that produces symbols and uses them. So I think it necessary that a theory of symbols should be called upon to unite the relations between these cultural goods. Now, in order to study such symbols ranging over vast areas it is quite useless to adopt

old-fashioned semantics. Such would serve not even as a principle of explanation with reference to stories and children's readings.

General semantics, on the other hand, is a type of theory concerning symbols which has shown practical application in our lives in that it clarifies relations between sciences and promotes their integration. Therefore I believe that the scientific systematization of facts concerning children's culture cannot be done without the aid of general semantics. Moreover, since the purpose of children's culture is the happiness of children, this aim is closely related to that of general semantics, for the latter is devoted to improvement and elevation of our ways of thinking and living.

GENERALLY speaking, the development of children's experiences is one of gleaning greater numbers of symbolic experiences from amidst direct ones. Direct experiences are overtly behavioral and have a "signal" character, while indirect experiences are "mental" and "symbolic." The latter experiences are indexed at higher levels of the abstraction-ladder.

On the other hand I know that Edgar Dale represents such an evolution in the process of experiencing as a "Cone of Experience" from the point of view of the specialist in audio-visual education. But for educators and instructors dealing with children's culture the important thing is not only this patterning of experience but also the character and evaluation of symbols. If we scientifically clarify the symbols of which cultural goods are the vehicles, we shall be able to give solutions to the problems of how those symbols serve as stimuli to children and how these children respond to them developmentally. And with this we will also be able to regulate the role of those symbols which bring happiness to children by means of our studying how to evaluate symbols. To fulfill these two aims there are, I think, no other effective standard theories except general semantics.

IT WAS in 1951 that I read for the first time *Language in Action*. I found it in the SCAP CIE Library in Osaka. Then I read several books by Messrs. I. J. Lee, W. Johnson and A. Rapoport. Moreover, I called on Dr. Hayakawa in Osaka and was given many suggestions in person. I know that general semantics has many areas of application by reading *ETC*. I am now striving to make general semantics useful in present-day Japan by way of my lectures concerning children's culture in our university. My intention is not so well expressed in the above explanation as I am not yet accustomed to write English freely. My purpose in sending this communication to readers of *ETC*. is to ask them for further suggestions and discussion on this entire matter of the application of the theories of general semantics to the problems of children's culture.

HOW TO SELL A VISION

IRVING H. FLAMM *

IN THE APRIL 1953, issue of *The Progressive* appeared a symposium by five eminent social theorists on which concept of society is better, "democratic capitalism" or "democratic socialism." After reading this exchange among Peter Viereck, Norman Thomas, and others, I found myself wondering what the issue was. Both sides credit each other with good will. Both are dissatisfied with our present social system. Both love "democracy" and "freedom." Both are opposed to "statism," "tryanny," "injustice," and "regimentation." Both are for an independent press, individual diversity, and human dignity. And, although they express themselves in different verbiage, both favor a mixed economy made up of both public and private enterprise.

Wherein do they differ? They don't say. They only wrangle over words, not things; labels, not content. Such debates are fruitless, because they revolve around unreal or irrelevant issues. They generate heat but little light, for these people are not discussing the same subject, but think that they are.

Now if they were discussing the relative merits of two specific objects before them, say a Buick and a Chrysler, they would study and compare the respective qualities of those objects. They would test *performance,* and, assuming they had the technical knowledge required for a sound judgment, they would end up in agreement on the features and relative qualities of the cars. They might still disagree as to which was better, but only because their *values* differed. Some would stress appearance and speed, others durability, economy, and comfort.

In the Viereck-Thomas debate there is no disagreement on values. *Their* differences arise because they are not looking at (nor talking about) the same objects. Their attempt at communication has failed. Neither could produce the spark required to send his vision of society to the other. It is as if they were using different languages, one unintelligible to the other. Each reacts to the label "democratic capitalism" or "democratic socialism" in terms of what he sees in his mind's eye, which in turn depends on his previous history and not on the possible extensional meanings of the terms. Herein may be the core of so many wide and violent disagreements about social concepts. I refer not to disagreements inspired by conflicting self-interests but to those between rational and altruistic men like Viereck and Thomas, who probably want the same things but react oppositely to certain labels.

The misunderstandings created by ineffective communication are in no small measure responsible for the well-known cultural lag between physical and social science. Physical scientists when discussing an issue within their field, rarely encounter such difficulties; for when they must resort to elastic verbal terms to

* Author of *An Economic Program for a Living Democracy* (1942) and formerly a practicing lawyer in Chicago, Mr. Flamm now lives in Beverly Hills, California.

transmit images in their minds, a referent or an explanatory context is on hand to assist in the proces. Social scientists seldom use the referents at their disposal. *Their* referents remain within them. And until they project their thoughts into understandable, step-by-step programs, argument about them is futile.

LABELS are, of course, a convenience, and we must use them. However, the intelligent housewife judges her groceries not by the labels on the packages but by the contents. We cannot examine or taste "democratic socialism" or "democratic capitalism," since these social systems do not yet exist. How then can these terms acquire content, if we are to avoid the extreme, uncharitable conclusion that they are altogether devoid of meaning?

We can do what the inventor of the first automobile did to sell what he envisioned; what the architect does when he envisions a structure not yet in being. To convert his mental concept into a reality, he must be able to communicate the picture to others. The architect displays his vision to the site owner, the city authorities, the money lenders, and the contractors. Each must be able to "see" the architect's concept of the proposed structure, so that he can satisfy himself that the structure will function as anticipated. Here communication is effected by working drawings, plans, and specifications. Together they add up to a clearly understandable *program of action,* a sort of slow motion picture, which reveals the various steps whereby specific materials will be used in specific ways. In short, the architect's communication medium shows both the objective goal and the road directions for reaching it. It is a map of what Hayakawa calls a territory-to-be.

So, too, must the social scientist proceed with the task of remodeling our inefficient social structure. He must begin with the formulation of a comprehensive plan of action, a remodeling plan that shows us a picture of his envisioned structure and how to build it. Had Viereck and Thomas formulated remodeling plans to display their respective concepts of the good society, we could examine each, compare their respective mechanisms to insure democracy, freedom, and economic stability and to safeguard against tyranny, regimentation, and injustice. Wide debate on both plans would then be fruitful. In due time, agreement might be reached on a revised plan which met all objections, incorporating the good points of each plan and improving or rejecting others. This, I feel, would be a scientific approach towards the reconstruction of our society to meet present day needs. If we are to develop a science of society, we must employ scientific method in its development.

Incidentally, a similar transition technique is used by Wall Street's legal engineers to revamp inefficient or failing commercial empires. May not this technique be adaptable for the reorganization of the United States, which too is a corporation organized to profit its shareholders? If we can debate rival reorganization or remodeling plans, we may get somewhere. As it is, we are bogged

down in a mire of intellectual squabbles over foggy abstractions. No wonder the rank and file citizen is confused, disgusted, seemingly indifferent to public issues. He sees all political parties peddling the same promises, the same glittering generalizations. The voter does not know or does not care which way to turn, and since the property interests have more to spend for promotion, they win more elections. To end this farce, the men of good will, who share the democratic faith, must distinguish *their* product from that sold by the opportunists under the same label. A concrete program of social action is the best way to make the distinction clear. It will reveal to the citizenry the difference in content despite the similarity of labels and slogans.

HITLER, by annexing the word "socialist" to his party label in a land where the label was popular, succeeded in hoodwinking the German people. Throughout the world we now witness similar deceptions. Labels like "democratic," "liberal," "Christian," and "socialist" are being appropriated by political leaders whose real aims are undemocratic, unchristian, or fascistic. To expose such thievery, one must display the goods they offer under those labels.

There must be millions of Americans hungering for reading or listening material that will help ease their tensions. The river of words flowing from politicians and social reformers can hardly satisfy them. The people are worried about actual conditions, not theoretical concepts; about jobs, war, monopolies, growing concentrations of wealth and power, about witch-hunts, high taxes and living costs. They want to know what to *do* about these things. They want direct answers, something they can sink their teeth in. We must provide them with something solid to chew on. Those who insist that means cannot be seggregated from ends, that evil means cannot lead to good ends, have a special obligation to help formulate a program of social action that will show a clearly understandable goal and how to reach it by peaceful means, how a modernized social structure can be built with the kind of human and physical resources we have on hand.

Whether such an initial plan be dubbed capitalist or socialist or a mixed economy is unimportant. The structural drawings and the detailed specifications will tell the story.[1] The final blueprints to emerge from the co-operative effort are likely to extract from all concepts what is promising and practical. And when that the final plan is submitted for general approval, it is not unlikely that the many Vierecks and Thomases, now battling over shadowy differences, will discover that they both share the same subjective reaction to it; that it corresponds to

[1] Students of economic reform theories will find an elaboration of this point in the author's book, *An Economic Program for a Living Democracy* (Liveright, 1942), which includes such a tentative reorganization plan to serve (1) as an explanatory context for hazy or flexible terms; (2) as a starting point for debate and bargaining among conflicting property interests and diverse social views and (3) to afford a "before and after taking" comparison for the citizenry.

the "democratic capitalism" envisioned by the one and the "democratic socialism" of the other. To be truly understood, one's intellectual concepts must be synthesized, projected as a line of *action*. We can't show four-dimensional movies of our inner feelings and thoughts. So we must try the next best device: describing as best we can how our visions were created, how they behave, and how they can be translated into realities.

WILL MATERIALISM RUN OUT OF MATERIALS?

KENNETH WINETROUT *

CRISIS-THINKING, a kind of masochistic indulgence among intellectuals, seems very much in the air today. There is the crisis in education, the crisis in religion, the crisis in international relations, the crisis in the family. It is with some reluctance that I add my voice to this mounting chorus of wails. However, my perception of time-binding and my observation of the production-consumption reports lead me to the conviction that at this moment in history the critical question in survival is how man as a time-binding organism uses his natural resources. How does he manage the physical basis of his life?

During the next four to eight decades the barometer to survival may be best read by keeping an eye on the world's natural resources. We may suffer mass psychoses and even the dementia of nations and yet somehow recoup our chances for survival. We can—and I guess we did—endure the madness of fascism and withal stage a rapid comeback. Madness we can tolerate. We have a certain resiliency here. But there is a critical point in our depletion of natural resources which represents a danger of another order. There is a peculiarly extensional quality about coal, oil, and iron.

"Man," said Korzybski in *Manhood of Humanity*, "makes the past live in the present and the present in the future, animals do not; man is thus a binder of time." For the well-being of society, as this definition implies, we must not permit a prolonged imbalance in stress upon the past, the present, or the future. Successful time-binding requires due emphasis on each of these three aspects of time.

We may pervert time-binding by an undue emphasis upon any one of these three aspects of time. We may also pervert it by being highly successful time-binders in one segment of human endeavor and by being careless time-binders in another. In terms of energy-production and goods-consumption, twentieth century man has proved himself a wondrously adept time-binder. We are too busy exploiting the product time-binding has given us for a rather immediate present to have developed at the same time a sensitivity to the needs of the future.

* Professor of Education, American International College, Springfield, Mass.

It would be comforting to believe that time-binding is an orderly, self-regulatory, and self-corrective process. But such optimism can scarcely be justified. David Riesman's characterization of twentieth century man as "other-directed" is suggestive of the lopsided time-binding we may be experiencing at this particular period in history. Riesman and his associates in *The Lonely Crowd* (1950) and *Faces in the Crowd* (1952) propose that life has been directed in three ways: (a) tradition-directed man is totally at the mercy of his culture, its customs; (b) the inner-directed man acts as his respected elders would have him act and as they have taught him to act; (c) the other-directed man takes his clues from his contemporaries and his peers. There is a progressive diminishing of the time-perspective as we move from the tradition-directed to the other-directed. The other-directed man is concerned with the present, almost to the exclusion of concern with the past or the future.

THIS CONCERN with the present bears directly upon consumption. A peer-directed culture has made us careless and insatiable consumers. We conform to rapid changes in style, so that there is a great deal of obsolescence. We are constantly under pressure to have a new car, to live in a ranch-house in suburbia—as others do. Everybody plays Jones to everybody else. We try to keep up with this intensional Jones not on any long-run basis, but year-by-year, month-by-month. In this atmosphere, everyone and anyone is a stimulant to consumption. The working man, we hear the professional man complain, buys too many toys for his children.

If we are indeed an other-directed culture, then this fact should play a part in our efforts to predict the future use of natural resources. How fast are we running out of stuff? The development of a depletion index would seem to be an obvious step. To arrive at such an index we would have to consider, in addition to the known reserves, such questions as the following: To what extent is a given nation devoting its research energies to the discovery of substitutes? What trends are observable in the assignment of personnel to conservation? What trends are observable in the consumption of inexhaustible, as opposed to exhaustible, resources?

We should also have to include in the working out of our depletion index some less measurable variables. For example, we should want some anthropological or sociological data on cultural patterns. How acquisitive is our acquisitive culture? How many are *trying* to keep up with the Joneses, and how many are succeeding? What is the military program on conservation? What kind of birthrate seems to be indicated in the foreseeable future?

From weighing these and many more factors, we should attempt to formulate our depletion index, which would constitute a kind of survival yardstick to indicate the availability of the physical basis of life. "What we call progress," wrote Korzybski, "consists in coordinating ideas with realities." We would deem

that culture progressive which organizes its goals, its consumption habits, and its future in the light of such a depletion index. Such a culture, coordinating its patterns of living to the realities indicated by resources, can be said to be time-binding.

WE HAVE good reason at this mid-century to be concerned with the failure to view the process of time-binding in its fullness: past-present-future. Our current time-perspective does not in the light of our natural resources and foreseeable substitutes encompass a sufficiently distant future. A concern with the present *per se* need not, perhaps, cause us alarm. However, in our case, much of this present-mindedness takes the form of an exhaustive utilization of natural resources for military purposes. We may love peace as no other people ever loved peace, but in terms of consumption our period is as militaristic as any history can show.

We are a guns-and-butter culture; indeed, a guns-butter-television-automatic-washer-newcar culture. We are furthermore living in an era of vast increases in population. Industrial research and advertising, playing on our other-directedness, are geared to create new demands in an accelerating cycle of turnover and obsolescence. Our foreign policy is designed to promote higher standards of living everywhere. We call it an expanding economy.

In spite of our talk about the ideological conflict between East and West, in spite of differences between these ways of life, in the context of this discussion the significant quality of both of them is their powerful materialism. Competition is competition with things. Neither side seems inclined to sell its way of life by an exhortation to renounce the goods of this world for the rewards of a world to come. Apparently, in its own way, the East is as other-directed and as present-minded as the West. Hence my concern with the world's resources. Are there not enough signs of imminent exhaustion that we should study our other-directedness and our time-binding in the light of a depletion index? Ought we not to know how we stand as to prospects for survival?

Our present day knowledge of the child's mind is comparable to a fifteenth-century map of the world—a mixture of truth and error, with the heads of strange sea monsters ominously rising out of the dark depths of uncharted seas. Vast areas remain to be explored. There are scattered islands of solid dependable fact, uncoordinated with unknown continents. Under the mounting influence of biologic rationalism, however, the unfinished map of the child's world is taking on more accuracy and design.

ARNOLD M. GESELL

☆ BOOK REVIEWS ☆

Prejudice Under Scrutiny

THE NATURE OF PREJUDICE, by Gordon W. Allport. Cambridge, Mass.: Addison-Wesley Publishing Company, Inc., 1954. 537 pp. $5.50.

THIS WORK by the well-known Harvard psychologist merits serious consideration for any prize which may be available for the best book of the year on community and ethnic relations. For breadth of perspective, clarity of expression and integration of material it will be hard to beat.

As the title clearly indicates, Dr. Allport has taken for his subject the problem of prejudice and has sought to examine its roots as well as the concrete measures which may be taken to implement men's affiliative values. The primary lesson of the book is that it is a serious error to ascribe prejudice and discrimination to any single taproot. While psychological motivations are stressed, the author acknowledges that long-range sociocultural etiology as well as the immediate causation involved in attitudes held by the individual must be taken into consideration. In this respect he shows the influence of contemporary anthropology and sociology—an influence easily accounted for by the fact that the book is an outgrowth of his seminar in the Department of Social Relations at Harvard.

The book as a whole is divided into eight parts. Part one deals with the concept of preferential thinking; parts two and three with group differences; part four with sociocultural factors, such as social structure and cultural pattern, scapegoats, and the effects of contact. Parts five, six and seven are concerned with the dynamics of prejudice, how prejudice is acquired in the process of living and learning, the factors of frustration, aggression, hatred, anxiety, sex, guilt, projection, and character structure. Part eight is devoted to the problem of reducing group tensions and to an evaluation of existing programs. Especially illuminating are the chapters (25 and 27) describing "the prejudiced personality" and "the tolerant personality."

OF PARTICULAR interest to students of semantics is the chapter devoted to the semantics of prejudice (ch. 11). The author acknowledges his indebtedness to Hayakawa's *Language in Action* and makes effective use of the latter's discussion of "the affective power of two-valued orientation." Dr. Allport's analysis of "verbal realism" and "symbol phobia" indicates the affinity of preju-

diced thought to primitive word-magic (pp. 186-87). The principle of linguistic precedence in learning (according to which the emotional word has an effect prior to the learning of the referent) explains dramatically how words become symbols of power and rejection (pp. 304-10).

The chapter on "Religion and Prejudice" (ch. 28) is one of the most judicious and realistic appraisals of this complicated subject which I have come across. The author avoids the extremes both of the apologists for religion who overlook its ethnocentric reference, and of its opponents who see only the limitations of organized religion. Instead he acknowledges realistically that religion works in contradictory directions. "Clarity of analysis," he holds, "demands a sharp distinction between the functional role of religion in a constricted and immature personality on the one hand, and in a mature and productive life on the other." (p. 455). "We cannot speak sensibly of the relation between religion and prejudice without specifying the sort of religion we mean and the role it plays in the personal life" (p. 456).

On the whole, Dr. Allport takes the position of meliorism. Since the problem is many-sided, there can be no sovereign remedy. Hence, he counsels, "the wisest thing to do is to attack on all fronts simultaneously," without anticipating any utopian solutions. Teaching, scientific publication, active participation in community projects, individual therapy, ridicule and humor, attacks through legislation on social segregation and discrimination in the areas of least resistance are all positive and constructive means to achieve the objective of democratic tolerance. The basic normative presupposition of *The Nature of Prejudice* is that "the tolerant personality" is the only type of personality and character which is logically and practically compatible with the democratic way of life and that the objective study of the irrational elements in human behavior will help us counteract them. Far from exalting mythical, ethnocentric thought, as some sociologists tend to do, Dr. Allport believes that the aim of social science should be to eradicate mythological and prejudicial thought so far as possible and to promote the exercise of critical intelligence in theory and practice. With this objective, as indicated elsewhere, this reviewer finds himself in hearty accord.

DAVID BIDNEY

Indiana University

Frontiers of Logic

FROM A LOGICAL POINT OF VIEW, by Willard Van Orman Quine. Cambridge: Harvard University Press, 1953. 184 pp. $3.50.

AS PURE logician, Quine has few peers. In this book, his sixth, he is less pure, less sure, than previously and roams a largely unchartered semantical frontier with caution, modesty, and no little wit. Readers unacquainted

with Quine will welcome the several chapters he manages to span in a terse vernacular sprinkled sparingly with the shorthand symbols of modern logic—a useful code too few institutions of higher learning offer any key to cracking. Actually, in only one chapter, previously published as an article, do the symbols really bristle, and those readers who know the fundamentals of but lack technical interest in modern logic may forego it without guilt-feeling or loss of continuity.

This one quite formidable chapter, incidentally, is "New Foundations for Mathematical Logic." Logicians have long referred to it as "NF" in the same manner as they abbreviate *Principia Mathematica* to "PM." Between these two classics is a salient connection. Whitehead and Russell launched their theory of types in PM in order to keep us from falling, occasionally, into a kind of contradiction against which our natural grammar, grown Topsy-like, is not sturdy enough to preserve us. But whereas the *theory of types* is staggeringly complex and inconvenient in its applications, NF, in contrast, performs the same task (and even more) with relative ease. Until this book, one had to consult NF in the journal stacks of a large library or prevail upon the author for an offprint.

The eight other chapters, though lighter reading, are rich in content. Quine takes pains to distinguish *meaning* from *naming*, shows that a singular term—say, "Pegasus"—need not name to be significant, and cuts the ground from beneath those philosophers who, for reasons more compelling than a layman might suspect, imputed an ethereal existence to Pegasus, the Minotaur, etc. He tackles, too, the old problem of universals and makes clear his "to be is to be the value of a variable" in a way that removes any suspicion that what there is (aside from words) depends on words. Students of general semantics and of Charles Morris's semiotic will take heart at Quine's occasional hint that psychology (behavioral, physiological) may have a role in solving some of the still intransigent problems of semantics—that, for example, of cognitive synonymy. The mathematician will find of interest the mirroring of three modern positions on the foundations of mathematics (logicism, intuitionism, and formalism) in older and classic ontologies (realism, conceptualism, and nominalism). The grammarian, linguistician, and lexicographer may well be startled to learn that the very setting of their respective problems depends upon a prior notion (synonymy) of which they fancy they have no need and which, perplexingly, no one has yet made much sense of. And most philosophers will wince at the punishment Quine metes out to their long-cherished notion: *analytic* sentence. Reply is needed.

THIS IS a dramatic book. Some of the drama accrues from Quine's tough and tidy mind. We can tell what he would *like* to be true—it would make things so *neat* if it were. But he is not one to mistake the desirability of a state-of-affairs as evidence for its existence or possibility. Just as we anticipate an unobstructed road to salvation, the road turns or we come upon debris. Often the debris consists of universals—abstract entities like redness and motherhood

which William of Occam's famous razor, though designed for such purposes, proved too dull to shave away. Quine detests universals—as well he might, for they enjoy at best a bastard existence not amenable to operational treatment. In jousting with them he has (in technical papers published elsewhere) succeeded in expunging them from long stretches of the logical highway by a successful translation of the linguistic contexts which give them status into a nominalistic language which makes them vanish. But he reminds us that thus far no one has been able to work this disinfecting magic on *all* contexts. It is well to be warned that classes are not sets; they are universals. It is saddening, but salubrious, to be notified, that Russell's *propositional function* (invented to dispense with classes) is, in one crucial sense of that ambiguous term, a universal itself.

Though I should not like to give the impression that this book will capture and fascinate the broad audience the jacket predicts, Quine has managed to bring to this work many of the elements of good fiction. The spell that they evoke is not broken by the fact that a tale is *not* being told. It is sufficient, somehow, that here is a man who in good humor and high seriousness does battle at the borders of logic and semantics, and he lets us watch.

JOHN R. KIRK

Chicago, Illinois

Existentialist Ethics

THE ETHICS OF AMBIGUITY, by Simone de Beauvoir (translated from the French by Bernard Frechtman). New York: Philosophical Library, 1948. 163 pp. $2.75.

SIMONE DE BEAUVOIR'S attempt, in this work, to formulate the ethical implications or position of the French "wing" of that philosophically puzzling movement known as Existentialism begins with the declaration that man's ethical condition is *essentially* ambiguous. One is tempted to state her ethical position as being a pessimistic humanism, save that man is placed against a somewhat clouded, murky metaphysical background of flux and anxiety. Her ethics is a contemporary individualism, she writes, "in the sense in which the wisdom of the ancients, the Christian ethics of salvation, and the Kantian ideal of virtue also merit the name; it is opposed to the totalitarian doctrines which raise up beyond man the mirage of Mankind" (p. 156). Of course, while such a passage gives general orientation to the author's value predilections, it fails to extensionalize what she means by wisdom, Christian salvation, or Kantian virtue—themselves all notoriously complex philosophical ideas. This is said not in an effort at flippant destructiveness but to indicate the frustrating tendency

of Miss de Beauvoir to attempt analysis by evasion, i.e., to "explain" a complex position by immediate referential appeal to another equally complex. Little of an analytic nature is achieved in this book with regard to ethical matters. Rather is most of the book devoted to a general description of the existentially pessimistic conception of man's "situation" (which is, of course, one of ambiguity). The position resembles a vague pragmatism lacking the latter's usual rational bias and admiration for scientific or experimental methods (after all, all experiment will still leave man, *ultimately,* in an ethically ambiguous condition!).

While she contributes little to ethical analysis, save the reminder that men must make choices even in a universe lacking absolutes (but in which, interestingly, all ethical choices are presumably "momentous" ones), the author does provide the reader with a summary of some of the major emphases of that existentialist branch with which she has been most closely associated. These include: (1) man's predicament in a universe requiring firm action even when the intellect can find no final goals; (2) general humanistic emphasis on man as the sole agent responsible for making choices; (3) repetitive statements concerning man's "freedom" to choose in a hostile universe; (4) the inescapable necessity of extreme "tension" for all men who can think and suffer. Simply stated, what Miss de Beauvoir wishes to emphasize is that man, lacking firm absolutes for ethical guides, must suffer the psychological problem of making relativistic choices. This is man's ethically ambiguous situation.

The violence of the historical period in which the author writes is clear. So, too, is the theoretical problem of attempting to achieve ethical sanity on an international level in this century. But what requires criticism is the author's willingness and readiness to take these specific historical conditions as perpetually normative for ethical analysis. This secularized Augustinianism lacking a City of God confines man to a madhouse, perhaps a psychoanalyst's dream, but raises the question whether a universe inhabited by millions of ethical neurotics is one to be desired or taken as a normative situation. There is here, as in the works of Sartre, a fascinated dallying with the Communist Party and the ideal of the neurosis-free party activist coupled with firm insistence on ethical freedom. But the authoress can neither accept nor reject concrete proposals for altering the historical situation causing man's ethical ambiguity save to generalize, chapter after chapter, about man's "condition."

NONETHELESS, semanticists may well read this book for at least three sound reasons: (1) it outlines the psychology of a current mood in Western thought which may be indicative of the extent to which many problems are not reducible to semantic clarity; (2) it contains pointed reference to troublesome issues of violence and social action with which intelligent persons have struggled for decades; and (3) it indicates that, if the book is at all representative of intellectual circles in France, say, these circles cannot possibly solve the concrete

political and economic problems facing France, Europe, and the world today. There is here a nihilistic paralysis of will, fascinated by the study of its own neurotic condition, and willing to take the latter as ethically normative rather than as a temporary pathological situation which ethical analysis must help to solve. It is Hegel without faith in Reason; humanism with a pathological view of man; pragmatisim without scientific methods; Kant without the Kantian pietistic faith in spite of the Kantian antinomies; and courage lacking a firm goal. In short, Simone de Beauvoir's man is the patient willing to continue the tortures of the psychoanalytic couch rather than the analyst struggling to achieve the patient's recovery. One fears that if Miss de Beauvoir's views are true here, they mark the end not only of ethics based on reason but perhaps of an entire civilization and epoch.

WHITAKER T. DEININGER

University of Dubuque, Dubuque, Iowa

Meanings in Childhood

THE SOCIOLOGY OF CHILD DEVELOPMENT, by James H. S. Bossard. Revised edition. New York: Harper & Bros., 1954. 788 pp. $6.

FROM THE TITLE of Professor Bossard's book, one would not expect it to be particularly useful for students of general semantics. However, general semanticists are used to picking up valuable clues and insights in unexpected places.

Perhaps we can say general semantics is at a point in its development where we can use it rather well to analyze what it is that people do when they behave in ways that are neurotic or unrealistic or simply nonsensical. But trying to get people to change their ways and act more sensibly is quite another problem. How skillful they are at resisting the truth about themselves! They are victims of their own warped attempts to translate reality into meaning, they are caught in the mire of their own logic, and yet they will not even admit that they are in error. Indeed, they often go to great lengths to make their error seem a virtue!

Such behavior is often perplexing to the student of the science of meaning, who wants only to help people become the masters of language, instead of its slaves. It is difficult for him to understand why people insist on being so blind, so stupid, and so foolish. The Freudians have shed some light on this mystery by their theories of unconscious processes and by their descriptions of complexes and attachments, said to be unresolved longings that went unsatisfied at earlier stages of life. Some of these formulations are helpful in explaining the paradoxes of everyday life, but somehow we are not entirely convinced. Perhaps this is because we ourselves are the unwitting victims of our own neurotic past, or perhaps it is because we are too steeped in scientific skepticism to accept ex-

planations that cannot be put to the test. Or, most likely, it is because Freudian theories are, at best, an incomplete explanation of behavior.

And here is where Professor Bossard enters the scene, for he is a man who has spent many years observing children in a countless number of settings. There is much that he has to say that helps explain how the patterns and problems of life develop. Whereas the clinical psychologist is principally concerned with studying the "internal" forces that go into molding and shaping personality and character, Bossard is concerned with the "external" forces and conditions that are the mirror images of the "internal" forces. At least, this is how his book appears to the student of personality. The fact that similar events and identical words can have such different meanings for each of us is evidence that our perceptions differ according to our personalities. The pages of this book bring forth countless examples of why it is that we develop such different perceptions, why the same events *mean* different things to us.

Bossard describes one family where there is an active interest in new words. If there is some question about a word during dinner, a dictionary is brought to the table, the word is looked up, and they all discuss it. Contrast this with a family situation where a boy happens to use the word "preference." His father rises up in wrath and shouts that as long as he is paying the bills, no son of his will high-hat him by using words like "preference."

Does anyone wonder why children from these two families have difficulty in communicating with each other? Not only will they have different attitudes toward abstract words, but their attitudes and viewpoints toward a wide variety of things in everyday life will differ widely. Their ideas on "what is reality" will differ. It will be difficult, for example, for them to come to any common agreement on matters dealing with education or school, inasmuch as "education" and "school" will mean such different things to each of them. How can people communicate successfully when the very words they use have different meanings for each of them? The chances are that they will be able to communicate fairly effectively where simple, concrete matters are concerned, but that they will have difficulty in agreeing or cooperating where abstractions are involved.

BOSSARD'S book deals with other concepts of potential interest to the student of general semantics. He has a chapter on the bilingual child, which shows a broad and perceptive understanding of the complex problems of meaning which face such a child. Another chapter deals with family modes of expression. Still another deals with family table talk. But the chief contribution of his book, from the standpoint of the semanticist, is the way in which it fills out the background against which all of us learn the language and the meanings that to a large extent make us the different persons we are.

HENRY CLAY LINDGREN

San Francisco State College

✯ CORRESPONDENCE ✯

Gold and the Abstraction Ladder

SIRS: Some of the concepts commonly used in semantics can, I believe, be helpful in clarifying certain areas of economic theory. I venture to suggest one such application by way of example. It has to do with the "abstraction ladder" concept and the commodity theory of money, a theory which influenced the decision to devalue the United States dollar in 1934.

One object of devaluation, according to a radio address by President Roosevelt on the evening of October 22, 1933, was to raise domestic prices to a level that would assure recovery from the economic depression then in progress. When the dollar was subsequently devaluated, however, no change of consequence took place in the general level of prices. No doubt many factors contributed to this negative result; one in particular—the lack of any impact of devaluation upon the price dispositions of traders—can, it sees to me, be explained convincingly by reference to the "abstraction ladder."

The commodity theory assumes that the value of money is determined by the market value of the commodity of which it is composed. That is, if, in a system of barter, one ounce of pure gold exchanges for, say, 20 bushels of wheat, then, in a money economy, if that one ounce of gold is split up into 20 coins, each called a dollar, and one smaller coin called 67 cents, the price of 20 bushels of wheat would be 20.67 dollars.

Previous to devaluation, the money value of one ounce of pure gold was, in fact, 20.67 dollars. After devaluation one ounce of pure gold was worth 35 dollars, the gold content of the dollar having been reduced from 23.22 grains of pure gold to 13.714 grains. According to the commodity theory of money, then, if one ounce of gold, divided into 20.67 parts, exchanged for 20 bushels of wheat before devaluation, an identical ounce of gold divided into 35 parts, would exchange for the same quantity of wheat after devaluation. In other words, devaluation would cause the price of 20 bushels of wheat to advance from 20.67 dollars to 35 dollars, and similarly, would cause price advances in all other commodities and services.

Indeed it is quite possible that such prices advances would have occurred had the money in circulation been actual gold dollar coins, and if, upon devaluation, each lot of 20.67 gold coins had been exchanged for 35 smaller ones. Traders might have then realized that the new dollars contained less gold. They might have been more conscious of the relation of gold and money.

This, however, would have been a very primitive monetary system—one on a low level of abstraction. Consider the various levels of abstraction intervening between this and the condition as it actually exists:

6. CREDIT—a mere figure in an account book.
5. A CHECK—a substitute for money.
4. U.S. NOTES OR FEDERAL RESERVE NOTES—paper money, but not even a warehouse receipt.
3. GOLD CERTIFICATE—(In circulation before devaluation). Paper money, but a dollar for dollar warehouse receipt for gold.
2. GOLD COINS—a substitute for bullion, but can be melted down into bullion.
1. GOLD BULLION—a commodity used in barter.

It is on this 6th level of abstraction that our monetary system operates for the most part. This is so far removed from the lower levels, involving gold, that most people fail to relate one with the other.

No wonder, then, that devaluation failed to advance the price level! The symbols, on the one hand, and the extensional reality, on the other, have become almost completely disassociated. To most people, devaluation meant nothing more than just another executive order authorized by an act of Congress.

Possibly this venture into "semantic economics" will suggest other applications to your readers, or criticisms and suggestions regarding this one.

HAROLD S. SLOAN

Adjunct Professor of Economics
Graduate School of Arts and Science
New York University

On Language-Fact Relations

SIRS: I wish to express unreserved admiration and warmest appreciation for the special issue of *ETC.* on metalinguistics (Spring 1952). I am in full accord with the hope expressed by the editors of promoting closer relationships between general semantics and other disciplines.

However, the emphasis on areas of agreement seems to me to contribute to the neglect of certain valuable differences. Perhaps I can illustrate my point most clearly by referring to the article by Chang Tung-Sun, "A Chinese Philosopher's Theory of Knowledge," which appeared in the metalinguistics issue (IX, 203-226). The views expressed in this article appear so similar in so many ways to those of general semantics that a difference should be sharply distinguished.

For instance, the author of this article demonstrates that Chinese logic is not based on the law of identity but instead emphasizes "relational qualities." This interested me very much until I realized that he was speaking only of inter-

verbal relationships and was in no way referring to the relationship of words to things and events.

In a theory of knowledge a connective relationship between "knowings" and "knowns" cannot be disregarded, or rather should not be disregarded. Yet a careful study of the author's theory of knowledge shows that he gives no consideration to this relationship. He does indeed propose four levels of knowledge, namely, "the external world," "sensations," "constructions," and "interpretations" (p. 225), and he does assert a "correspondence" or interdependence between them. But he completely disregards the "how" or the "patterning" of this interdependence. Like Korzybski he emphasizes non-identity, but unlike Korzybski he does not develop any form of correspondence alternative to that of identity.

This lack of structural relationship between "knowledge" and the "external world" leads him to the conclusion that theoretical knowledge is "detached" (p. 225) and that consequently there can be no basis for judging the "correctness or incorrectness" of different theories, beliefs, and interpretations. He says that, "Social thought is not concerned with verification. It is unverifiable but realizable" (p. 224). It seems to me that this form of philosophical irresponsibility has considerable currency. And I suggest that it results from a serious defect in present theories of knowledge. This defect can be described as a lack of an adequate modern substitute for identity as a structural connective between language and "things," between social theories and the world.

SOMEHOW the fact has been obscured that general semantics makes a tremendously important basic contribution to linguistics by introducing a fully developed modern structural connective. I refer, of course to the connective relationship of "similarity of structure." While the recognition of this principle is not original, its detailed and explicit formulation in *Science and Sanity* would, even at this late date, have considerable impact on linguistics, if its presence were more widely known. F. S. C. Northrop in his *Logic of the Sciences and the Humanities* uses the term "epistemic correlation" to designate this connective relationship. Köhler in his *Gestalt Psychology* uses the phrase "analogy and homology of morphological structures." Examples of this basic notion abound in other fields.

Yet current linguistic theories persistently disregard the problem of adequate connective structure in the "knowing" process. For instance, so far as I can discover on first reading, Dewey and Bentley's *Knowing and the Known* makes no reference whatsoever to the possibilities of structural correlation. Instead, entire dependence is placed on "designation," "specification," "naming," "naming-knowing," and similar semi-identity or "pointer" terms. Dewey in Chapter X makes an impassioned plea for recognition of the "transactional" interdependence of "knowings" and "knowns." Yet he does not seem to realize the in-

adequacy of "designation" to account for this interdependence beyond the most elementary signaling situations.

Concerning the importance of the "transactional" relationship between "knowings" and "knowns" appears this significant statement, *"No attempt at all,* so far as we are aware, has been made to concentrate upon it as a dependable base for operations" (p. 280). I believe that the writers were genuinely unaware that a major portion of Korzybski's work was devoted to analysing this transactional relationship. For example, they refer to Korzybski as devoting "so much of his writing to the insistence that the word is not the thing." Following this they say, "His continued insistence upon this point will remain a useful public service until, at length, the day comes when *a thorough theory of the organization of behavioral word and cosmic fact has been constructed*" (p. 220; italics supplied).

Apparently the diffuseness of *Science and Sanity* has concealed the fact that it is mainly concerned with an attempt to formulate "a thorough theory of the organization of behavioral word and cosmic fact." I feel it to be a shame and a scandal that this has not been brought out in such a way as to compel at least direct consideration by students of linguistics.

I THEREFORE suggest that *ETC.* regularly devote a small amount of space to rigorous technical discussions tending to establish general semantics in the minds of logicians, students of linguistic science, etc., as something more than a set of attitudes. I also suggest more specifically that the connective problem mentioned above provides an excellent point of departure. There is much more to this problem than is suggested by the picturesque phrase "mapping territories." It is conceivable that Professor Northrop could be persuaded to contribute an article comparing his ideas on "epistemic correlation" with those of Korzybski on "similarity of structure."

Strategically, if the linguistic scholar can be made aware of the crucial importance of the connective problem, he should be ripe for doubting the adequacy of "designation." He may then become susceptible to a theory of structural correlation. The question "correlation between what" should be sufficient to direct attention to levels of linguistic structure and problems of multiordinality. From this should follow a realization of the abstractive character of the connective relationship, or the invention of a less confusing term than "abstraction" to describe the selective nature of epistemic correlations.

Referring to the last sentence of your Foreword in the Spring Issue of *ETC.*, I would say that *ETC.* can best contribute to the enrichment of other disciplines by bringing to the attention of serious students evidence that general semantics has something basic and substantial to offer.

EDMUND N. TODD

Miami, Florida

Culture, Symbols, and Philosophy

SIRS: Professor Wein's rediscovery of America is a very hopeful sign of the times.[1] In the course of a three-month visit he has learned that the European prejudice of equating American philosophy and anthropology with positivism and behaviorism is in error and that there is in reality "an immense and fruitful diversity of philosophical and methodological trends." The presence of non-Catholic neo-Thomists, represented by John Wild and Henry B. Veatch, surprised him. Philosophy, he found, was also taught outside philosophy departments by such scholars as Robert Redfield and David Riesman. The appreciation of value-orientation in American anthropology and sociology, as exemplified by the works of Kluckhohn and Parsons, seemed to indicate that the positivistic concepts of culture and behavior had broken down.

Professor Wein's reference to Kroeber's *Anthropology* (1923 and 1928) as a bridge to Nicolai Hartmann's "Theorie des Objektiven Geistes" strikes me as rather amusing. Some of us indeed have taunted Kroeber with the suggestion that his theory of the cultural superorganic was reminiscent of idealism, but Kroeber himself would be horrified and scandalized to find his work now classed with any doctrine of "objective spirit." His approach, he claims, is a purely naturalistic one and he is opposed on principle to any dualism of "Natur" and "Geist" such as was proposed by the Neo-Kantian German historians and philosophers of the nineteenth century. The recent monograph *Culture: A Critical Review of Concepts and Definitions* by Kroeber and Kluckhohn (Cambridge, Mass., 1952) demonstrates convincingly how much opposed he is to the nature-spirit duality and to what lengths he is prepared to go to pin this label on others.

Professor Wein has been particularly impressed with "the flourishing of a unique philosophy of language in the United States." He fails to distinguish, however, the ethnolinguistic or "metalinguistic" approach of Whorf from the philosophical, empirical approach of Morris and Richards. The followers of Whorf, in particular, have attempted a kind of Copernican revolution which would give to the categories and structures of language a primary role in the determination of one's cultural perspective—a position which the majority of philosophers and cultural anthropologists would not accept. On the other hand, some contemporary American anthropologists, such as Herskovits, have found much to agree with in the idealistic approach of Cassirer and his phenomenological analysis of symbols as organs of reality. As is well known, Urban's *Language and Reality* and Cassirer's *Essay on Man* and *The Philosophy of Symbolic Forms* (now being published in translation by the Yale Press) are expressions of an idealistic philosophy of language which owes much to German Neo-Kantian idealism.

[1] Herman Wein, "Toward Philosophical Anthropology?" *ETC.*, XI (1953), 21-27.

I DO THINK, however, that Professor Wein is substantially right in his appraisal of a trend toward some kind of "philosophic anthropology." American anthropologists are conscious, as never before, of the role of philosophical theory in the historic interpretation of the nature of culture and of the methodology of culture history. Kroeber's collected essays on *The Nature of Culture* (Chicago, 1952) and the symposium *Anthropology Today* (Chicago, 1953) give expression to this trend of thought. My own recent work *Theoretical Anthropology* (New York, 1953) is essentially a philosophical analysis of the basic concepts and issues of modern cultural anthropology. Hartley Burr Alexander's *The World's Rim* is a philosophical appreciation of the mysteries of the religion of the North American Indians. Malinowski's work on *Freedom and Civilization* (New York, 1944) and his collected essays on *Magic, Science and Religion* (Glencoe, Ill., 1948) manifest philosophical interest on the part of an anthropologist. Professional American philosophers such as Whitehead, Santayana, Urban, Northrop, Perry, McKeon, Vivas, and Langer, have done much to re-orient philosophy in the direction of philosophical anthropology. Thus, while anthropologists are discovering for themselves the relevance of philosophy to anthropological thought, philosophers are breaking away from their self-imposed isolation and discovering anew the world of culture and symbolic forms as fruitful material for the philosophical enterprise. The problem of man is once more emerging as the central theme of modern philosophy, anthropology, and linguistics.

DAVID BIDNEY

Department of Anthropology
Indiana University, Bloomington, Indiana

On General Semantics Training

SIRS: The approach here is based on the assumption that if the student is to manifest the principles of general semantics, he must learn by doing. The teacher can lead, direct, guide the student, but essentially it is the student who must constantly be conscious of the principles and consequently carry over this consciousness into action. The following are some suggestions for achieving this end.

A training program can be built around exercises in class and assignments outside of class. The classroom exercises are designed to make the students become aware of their evaluations practically on the spot. For example, the students can be asked to write down "all about the desk you are sitting on." After, say, ten minutes, the papers are collected. Now we write on the blackboard "all" the characteristics mentioned on the papers, repeatedly stressing the world "all." This word had not been emphasized in the first assignment to point up the student's unconscious assumptions about language. In the blackboard demonstra-

tion, we do emphasize it so as to bring to them the recognition of non-allness.

By having the students write down their answers before discussing the principles involved we achieve a two-fold purpose. First, the teacher can obtain a "pre-index" of an individual student's evaluations relative to the principle. The teacher can thus gauge the progress made, insights acquired, and thus the success of the course. Second, the student becomes conscious of the change in his evaluations, and the principles are thus driven home more effectively.

Another classroom experiment might consist of a discussion of some current topic along conventional lines, as it usually appears in the press, say a discussion of the "issues" thought to be the basis of the present East-West conflict. Along with the discussion carried on, say, by two students in front of the class, there can be running comment by the remaining members of the class on the remarks of each speaker, pointing up the unconscious assumptions, identifications, and other semantic mechanisms involved. Role-playing can be introduced by having one student assume the role of an extensionally-oriented observer, while another plays the dogmatist.

OUTSIDE the classroom, training may consist of several kinds of assignment. One of these is an "evaluation diary," a record of misevaluations the student finds in everyday life, not only in others but also in himself. The mass media, movies, radio, and television can provide a rich source of material. The important part of the assignment is to trace instances of non-adaptive behavior, conflict, and misunderstanding which can be seen to result from misevaluations.

If training in silence is a part of general semantics training, then one of the requirements in this assignment should be that the student, upon becoming aware of a misevaluation, should refrain from analyzing the situation verbally *at the time*. There are several reasons for this requirement:

1. Beginning students of general semantics often make the mistake of trying to "correct" other people's misevaluations, while themselves exhibiting serious misevaluations in the course of their well-intended behavior.[1]
2. Bursting immediately into speech stops an individual from observing.
3. Refraining from making verbal judgments is in itself good training, because it gives one the direct experience of how difficult it is to refrain from immediate verbalization.

I have tried the foregoing exercises with some of my adult education classes in general semantics, and from my experience so far I believe that the program is useful and practical.

SANFORD BERMAN

School of Speech, Northwestern University

[1] See Ann Dix Meiers, "Avoiding the Dangers of Semantic Adolescence," *ETC.*, IX (1952), 273-277.

Errata: Dr. Weaver's Article

SIRS: The following corrections to the galley proofs of Dr. Warren Weaver's article, "Recent Contributions to the Mathematical Theory of Communication," published in *ETC.*, X, 261-281 (Summer 1953) were sent in by Dr. Weaver before the issue was in print. But because of my repeated absences from Chicago last summer, I was not able to incorporate the corrections into the final copy. I would like, therefore, to call the attention of our readers to the following corrections:

Page 261, footnote: Dr. Weaver is Director of Natural Sciences and Agriculture of the Rockefeller Foundation.

Page 262, last line: I think that this basic difficulty . . .

Page 264, 2nd line: . . . justify these last remarks.

Page 265, paragraph e, 2nd line: . . . formed of *discrete* symbols . . .

Page 267, 18th line: . . . at any stage of the process . . .

Page 270, footnote to mathematical formula: Do not worry about the minus sign. Any probability is a number less than or equal to one, and the logarithms of numbers less than one are themselves negative. Thus the minus sign is necessary in order that H be in fact positive.

Page 272, end of 2nd paragraph: . . . these numbers then being sent over the channel as the signal.

Page 272, end of the 5th paragraph: . . . can never be made to exceed C/H.

Page 279, 4th line: . . . at the outset of this theory . . .

Page 280, 10th line from bottom: . . . to the sacrifice of the one . . .

ANATOL RAPOPORT

> Oil men, through some queer quirk of herd psychology, have been great respecters of political boundaries. When oil is found in a state they are likely to search that state with enthusiasm and thoroughness, ignoring areas of equal promise just over the state line. Perhaps this explains why no oil was produced in New York until five years after its discovery in northern Pennsylvania. . . .
>
> Down in Texas, close to the southeast corner of New Mexico, the year that saw Maljamar discovered saw the discovery of the Hendricks field, one of the great fields of the West Texas Permian basin. The field was scarcely more than a stone's throw south of the New Mexico border, on a structural feature that obviously extended into New Mexico, yet for nearly three years the state line stopped the oil men cold.
>
> M. W. BALL, *This Fascinating Oil Business*

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